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THE ESTABLISHMENT OF CRITERIA FOR A DEVELOPMENTAL
READING CURRICULUM FOR THE SLOW-LEARNER
IN THE SECONDARY GRADES

by



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The undersigned certify that they have read, and recommend to the Faculty of Graduate Studies for acceptance, a thesis entitled "The Establishment of Criteria for a Developmental Reading Curriculum for the Slow-Learner in the Secondary Grades" submitted by Vera Mary Jarvis in partial fulfilment of the requirements for the degree of Master of Education.

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ABSTRACT

In every school system, there exists a large group of students who tend to drift along, experiencing considerable failure and frustration at their inarticulateness and inability to read effectively and meaningfully. These are the slow-learners, students with individual I. Q.'s from 75 to 90, who comprise approximately twenty per cent of the school population. They also comprise one-fifth of our nation's future, and these students at the secondary level must be prepared to undertake adequately their social, economic, and civic responsibilities; in other words, educated to be a successful citizen, and to be successful economically.

Although educators have been aware of these students for many years, little appears to have been done to provide for them. They are capable of being more effectively educated, yet any provision for these atypical students will necessitate a complete re-thinking and re-structuring of the curriculum, with its concomitant learning experiences and subject matter, based upon the specific needs and characteristics of the slow-learner. That the slow-learner possesses limitations physiologically, intellectually, educationally, and socially when he is compared with his classmates is undeniable. Still, most slow-learners at the secondary level are not achieving to their educational and intellectual potential.

It is perhaps in the development of language that

the slow-learner's limitations are particularly noticeable. His inferior speech and language development causes a gulf between him and his average peers which widens over the years; the lack of vocabulary and syntactic ability in speech and language patterns have consequent implications for his cognitive development and, subsequently, for his reading. With the increase in complexity of the printed word, the slow-learner's response to the printed word is often inadequate, and meaningful reading is thus frequently beyond his ability.

The teaching of reading is one of the most important tasks of our schools, for literacy is essential for what modern society regards as a complete education. In fact, success in reading is assumed to be related to both successful living, and being a successful citizen.

In order to remedy the situation of the slow-learner, especially those in their final years of compulsory formal education, it would appear that a differentiated curriculum is mandatory. To this end, criteria have been established in this study for a general differentiated curriculum, more specific criteria have been established for a differentiated language-arts curriculum and, finally, criteria have been established from which a curriculum in developmental reading for the secondary level slow-learners may be structured. These criteria are based upon research into the peculiar needs and characteristics of the slow-learners in terms of their academic, vocational, emotional, civic, and social aspects.

They are one-fifth of our future, and the education of these children for that future is vital.

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CHAPTER I

THE NATURE OF THIS STUDY

The Problem

In every school system, and at every level, there exists a group of students who appear to have been overlooked in most educational thinking and planning. These students are neither average nor mentally retarded; rather, they belong to a group of individuals known as the slow-learners, comprising approximately twenty per cent of the school population.

These atypical students seem to have been, at best, only tolerated in the school situation where, subjected to repeated failure in competition with their more able peers, they have become educational casualties, destined for a somewhat questionable future.

Educators have long been aware of this problem group confronting classroom teachers, but it seems that little effort has been expended in providing adequately for them. Such provision for the slow-learners would require a complete re-thinking and re-structuring of the curriculum, and of school organization.

Although there is a growing awareness of the necessity for providing adequate and appropriate kinds of educational experiences and realistic objectives for these students in the schools, especially at the secondary level, the magnitude of the task is such that, often, either nothing has been done, or, in some instances, the curriculum has been adapted, or

the child has been required to repeat the grade in the hope that by spending additional time to master the content material for that grade level, a passing mark might be achieved.

That the slow-learners are capable of being effectively educated is undeniable; with a curriculum structured specifically for their particular needs, there appears to be no reason to doubt the ultimate success of such a programme.

The Language-Arts Programme

The task of the school is to develop each child into an effective individual personally, socially, economically, and civically. To this end, no other academic skills are more essential to the slow-learner than those incorporated in the language arts. Consequently, these should occupy a position of primary importance in, and throughout, the education of the slow-learner. In particular, organized reading programmes are almost universally required if general competence in school is to be achieved. The reading abilities of slow-learners are limited; therefore, the objectives, learning experiences, and content materials must be planned within these limitations and restrictions. This would entail the structuring of a curriculum based on criteria established specifically for the slow learning student, and not merely an adaptation of the existing curriculum which is structured for the average pupil. This adaptation usually consists of additional drills, remedial work as opposed to developmental

learning, repetition of content materials, and the structuring of such skills as word identification.

The Purpose of the Study

It is the purpose of this study to establish criteria for a curriculum of developmental reading for slow-learning students at the secondary level. These criteria will reflect the slow-learners' specific characteristics and needs, taking into consideration the educational, social, vocational, and civic prognoses for each individual. In addition to the establishment of criteria for the general curriculum, the language-arts curriculum, and the developmental reading curriculum for the slow-learner at the secondary level, there will be discussed the learning experiences, content materials, techniques of instruction, generalizations for the evaluation of materials, and the criteria for the evaluation of the curriculum.

It is hoped that although the curricula and courses of study may change, the criteria will remain relatively constant. Any course of study derived from the criteria to be established will be only one of several derivations, but the general criteria for the slow-learner, and the more specific criteria for the language-arts and reading curricula will, hopefully, endure.

Thus, the establishment of criteria will be developed as indicated in the following diagram:

General criteria for slow-learners at the secondary level



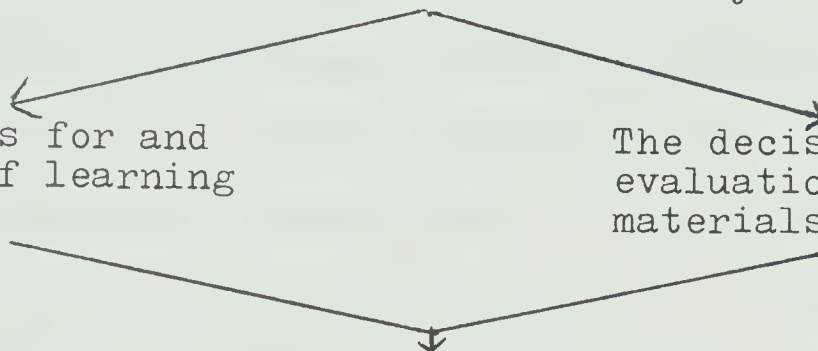
Specific criteria for a Language-Arts Curriculum
for slow-learners at the secondary level



Specific criteria for a Developmental Reading Curriculum
for the slow-learners at the secondary level

The decisions for and
evaluation of learning
experiences

The decisions for and
evaluation of content
materials



comprising a course of study

The Background of the Study

Little has been done to provide a curriculum, learning experiences, and content materials that will meet effectively the reading needs of the slow-learner in the secondary grades today.

Thirty years ago, Kirk (1940) commented that academic or general proficiency at the secondary level was closely correlated with the student's ability to read, since "through utilizing this skill, he may obtain vicarious experiences, and may learn further about the problem of living and earning a living (p. 176)." For these reasons, Kirk stipulated that: "Stress should be given to reading instruction in the upper grades and in the high schools with dull-normal children if they are expected to adjust to the reading needs of daily

life (p. 182)."

Twelve years later, the Michigan Holding Power Committee (1952:6) identified mental ability, scholastic achievement, and reading level as the factors being uppermost in importance in determining whether boys and girls stayed in school or dropped out. It is also significant that the committee comprising the Kitch and McCreary California Cooperative Study, Now Hear Youth, (1953), after asking 1500 drop-outs of the San Diego High Schools the question: "How well do you feel your school trained you in reading (p. 6)?", received replies indicating that seven-tenths of these students felt they had received inadequate training in reading, and these ex-students were greatly concerned over their lack of preparation in this fundamental skill.

Penty (1956) investigated the drop-out problem in more depth, and found that those students leaving school before graduation were primarily slow-learners. She stresses the importance of reading in the education of this atypical group in her statement:

The past experience in most school systems of terminating special help in reading at the close of the sixth grade is not meeting the needs of students who are expected to read increasingly difficult and varied materials without receiving any help in the techniques of reading those materials. The prevalence of drop-outs in the tenth grade points to the need for special help in reading between the sixth and tenth grades. Also, it is undoubtedly desirable to continue the giving of reading help throughout the high school grades (p. 77).

In 1969, Younie, although conceding that the

slow-learner "is considerably behind his normal peers in the frequency with which he uses reading as a major tool of communication (p. 91)," also stresses that, in the junior and senior high schools, "The need to develop and maintain reading skills is a recurrent theme in all subject areas (p. 89)."

By quoting the writers above, it may be assumed that over the thirty year intervening period, nothing has been done to create a developmental programme specifically for the slow-learning students so that they may more adequately read. For despite the different media for communication now in use, man must still read. Socially, he must face the demands of a society which still requires reading for driver's tests, enjoying magazines and novels, gaining information from the newspaper and news magazines, or even for the critical comprehension of television commercials. Vocationally, there are demands for reading ability in filling out income-tax returns, job application forms, making reports, reading directions, and following instructions. Even in the course of citizenship duties, judgements are required for the evaluation of political platforms, by-laws, and plebiscites.

It appears essential, then, that the schools assume the responsibility of ensuring that all students, slow-learners included, be adequately prepared for their roles in society in that they may knowledgeably undertake those reading tasks required of them. Since this appropriate reading instruction for the slow-learners may be given only

after their needs and characteristics have been investigated and determined, it is necessary to examine the verbal, perceptual, and conceptualization capacities of these students in order to obtain criteria for judging what shall be the peculiar objectives of their reading curriculum, and then establishing learning experiences and content materials to accomplish these.

Definition of Terms

1. Curriculum

The term "curriculum" will refer to a structured series of intended learning outcomes, the purpose of which is to guide instruction and to furnish criteria for evaluation. The curriculum will be, therefore, a statement of intentions.

2. Course of Study

This term will refer to a programme of instruction consisting of a series of planned learning experiences, content materials, techniques and methods of instruction, examination and evaluation of materials, and guides for evaluation of the programme.

3. Slow-Learner

The slow-learner is a student who, on a verbal intelligence test, obtains an intelligence quotient of between 74 - 95, thereby placing him between .625 and 1.625 standard deviations from the norm. The student will rank high enough

in intelligence to escape the classification of "mentally retarded," but, be too low to be deemed "average," although he is in a normal classroom.

4. Reading

Reading is thought which is triggered by printed or written symbols. These may be in the form of words or other types of symbols.

5. Developmental Reading

The systematic and sequential units of learning in reading, suited to the specific needs and abilities of the students, having many variables and skills, and designed so as to allow the student to progress at his own rate.

Limitations of this Study

Whilst perusing this thesis, the reader should keep in mind the following limitations:

1. There is a paucity of literature pertaining to the slow-learner that is based upon empirical research. Therefore, the sections which describe the physiological, psychological, emotional, and social characteristics of the slow-learner have been gleaned from relatively restricted research sources.
2. Several types of children fall into the "slow-learner" category. This study limits the group under discussion to those who are intellectually slow, rather than including any who are slow-learners due to underachievement, emotional disturbance, sensory deprivation, or neurological impairment.

In other terms, the slow-learner of this thesis is a student in a regular classroom, proceeding at a slower rate than his average peers.

The Format of this Study

This is the way in which it is proposed to examine issues involved in establishing the curriculum criteria for the slow-learning students:

I. The Nature of the Study

This will be a statement of the problem, the purpose of the study, the background of the study, the definitions of terms used in the study, a description of the format, and the significance and limitations of the study.

II. The Nature of the Slow-Learner, and the Sociological Implications

This chapter will define the slow-learner, discuss the characteristics of the slow-learner from physiological, intellectual, emotional, and social aspects, examine briefly the language and reading development of the slow-learner, and state some of the sociological implications of the slow-learning student and his future role in society.

III. A Discussion of Literature Pertaining to the Elements of Curriculum, the Formulation of Objectives, and Learning Experiences

In this chapter, the terms "curriculum" and "instruction" will be defined for the purpose of this thesis. Following the statement of definitions, the elements of

curriculum will be discussed. In section four of this chapter, there will be an examination of the formulation of curriculum objectives and their accompanying learning experiences, as seen from historical, psychological, and sociological viewpoints.

IV. The Educational Implications of the Slow-Learner for a Differentiated Curriculum

Four sections will comprise this chapter. Following the introduction, section two will present a review of the literature pertaining to the need for a differentiated curriculum. Section three will examine educational trends in Alberta, and, finally, a summary of implications will be made.

V. The Development of Language and Reading in the Slow-Learner

This chapter is concerned with a discussion of the development of the language and reading processes, and their implications for the slow-learner. There will be a section examining the development of language in normal and atypical children; this will be followed by a discussion of the reading process and the reading characteristics of the slow-learner. Inferences will be drawn from these sections, with regard to the implications of language and reading development for the slow learner, and conclusions will be summarized from which criteria may be established.

VI. The Establishment of Criteria

There will be discussion and the establishment of

criteria for a differentiated curriculum in three areas:

(1) a general, total, differentiated curriculum for all students at all levels; (2) for the language-arts curriculum, and, (3) the specific differentiated curriculum in developmental reading for the slow-learner at the secondary level.

VII. Summary, Conclusions and Implications

This chapter will provide a summary of the study, a statement of conclusions drawn, and will suggest implications for reading, for teaching, and for further research in the area of reading and the slow learner.

CHAPTER II

THE NATURE OF THE SLOW-LEARNER AND THE SOCIOLOGICAL IMPLICATIONS

Introduction

A current philosophy is that the schools must develop each child's potentialities and capabilities to the maximum. In order to accomplish this goal, and to specify the means to such objectives, it is imperative that the curriculum-writer have considerable information and facts about the nature of the learner for whom the curriculum is intended. For it is on the basis of this information that decisions about the elements of curriculum are made.

This chapter will contain five sections. After the introduction, the second section will define the type of slow-learner about whom this thesis is concerned. The third section will discuss the characteristics of the slow-learner from physiological, intellectual, emotional and social aspects. In addition, the language and reading development of the slow-learner will be examined. The fourth section will determine the sociological implications of the slow-learner and his role in society, and the fifth section will comprise a summary of the discussion in this chapter.

The Slow Learner, Defined

The general term "slow-learner" has been used in pertinent literature to include many types of slow-learners:

those with inherent defects or cerebral damage, the under-achiever with above average intellectual ability, the under-achiever with emotional problems, and the child with limited intellectual ability.

The terms "slow-learner," and "dull-normal," and "mentally retarded" were used synonymously by Kirk (1940), although later he restricted the term "slow-learner" to: "a student not having the capacity or potentiality to learn intellectual things such as reading at the same rate as average children (1942:172)." This definition is too broad for the purpose of this thesis in that it could include all slow-learning children, even those at the lower level of mental retardation who would be unable to read beyond the primary level, if at all.

The same broadness of definition is found in Good's Dictionary of Education (1959), which states the slow-learner is: "a child who fails to make progress in accordance with the desired and accepted school schedule ... an exceptional pupil who thinks, acts, or moves more slowly than most children ... and makes slow progress in school (p. 432)." The slow-learner about whom this thesis is to be written is not "exceptional"; he is part of the regular class, even though he may not benefit from the regular curriculum.

A method of ordering adult mental retardates according to Piaget's stages of development classifies the borderline adult as one who is able to use only the simpler forms of

formal operations (Inhelder, in Robinson and Robinson, 1965: 357). However, this definition does not specify the type of slow-learner -- whether he be physiologically, emotionally, or intellectually slow.

There are two writers who limit the definition of "slow-learner" to the intellectual aspect. Featherstone (1951) defines the slow-learner thus: "There is no fixed standard or level of ability below which a pupil must be called a slow-learner, but in common practice, pupils with an I.Q. below 91 and above 74 are so labelled (p. 2)." This definition is paralleled by that of Johnson (1963) who states: "The slow-learners are those children who score between approximately 75 and 90 I.Q. on a verbal intelligence test (p. 42)."

Any definition which involves intelligence quotients to depict normalcy and below-normal students is open to question, for these figures utilize only a statistical concept of normalcy founded upon the bell-shaped curve. Most widely known verbal intelligence test (e.g. the Stanford Binet, the Wechsler Intelligence Scale for Children, the Wechsler Adult Intelligence Scale, the Lorge-Thorndike Intelligence Tests, and so on) use a standardized mean of 100 to indicate normalcy. However, in some areas, the "normal" intelligence may be much higher or lower than the standardized mean. Thus, for example, an I.Q. of 112 might be considered "normal" for a certain area, and a child with an I.Q. of 100 would be deemed "slow". Alternatively, a

child with brain damage, or a child with emotional difficulties might achieve an I.Q. which would not be truly indicative of his capabilities.

It is necessary to this thesis that the slow-learner be defined in terms of intellectual scope; therefore, the definition of a slow-learner will be an amalgam of Featherstone's and Johnson's definitions quote above, but in order that it may be more comprehensive and applicable, the definition will also be generalized in terms of the mean and standard deviations, in addition to a statement of specific intelligence quotients. Therefore, although the concept of statistical normalcy is used, it could be manipulated to include those students who are below the normalcy using certain standard deviations as criteria.

Statement of Definition

For the purpose of this thesis, the slow-learners are those children who achieve an intelligence quotient between 75 and 90 on a standardized intelligence test of such repute as to be advocated reliable and valid by authorities such as those who may be found writing in The Yearbooks edited by Buros. In terms of standard deviations, this would imply the achievement of an intelligence quotient between 1.625 and .625 standard deviations below the mean; in terms of the normal curve, this means those children between approximately the tenth and thirtieth percentiles are included, in accordance with the projection for slow-learners as twenty per cent by

the Binet Intelligence Test Standardizations in Terman and Merrill (1937).

These statistics imply that the slow-learner under discussion is a student in a normal classroom, and does not require special class placement. However, since he cannot achieve at the same rate as his average peers, he does require a specially differentiated curriculum.

The Characteristics of the Slow Learner

The slow-learners, as defined in Part II, are so close to the average students that any physical, intellectual, emotional, and social characteristics are not readily discernible as being different. Their appearance and reactions are much the same as those of children in general, and it is impossible to distinguish them merely by looking at them. This normalcy, however, is probably the cause of many of their difficulties; since they appear so normal, "the casual observer and the unaware educator do not recognize or realize their deviations and resulting problems (Johnson, 1963:30)."

Research has indicated that certain generalizations may be made with regard to some of those characteristics pertaining to the slow-learner; these will be outlined and discussed under various headings:

1. Physical Characteristics

Physically, it is generally agreed that the slow-learner is slightly inferior to the normal child. Slow-

learning children were found to suffer more from general debility, whether it be innate or due to environmental factors of poor feeding and poor medical care in early childhood. Rather than suffering from major serious disabilities it seems that slow-learners have a plurality of minor troubles, as outlined by Burt (1961):

...the most common condition appears to be the child who is suffering, or who has suffered during pre-school life, not from any single, well defined complaint, but from a plurality of minor troubles, all contriving to manifest and maintain a lowered state of bodily vitality. The outstanding condition is what is often termed as general debility, no doubt partially innate, and partly due to various post-natal and environmental conditions---poor feeding in early years, series of minor infections, lack of proper food and sleep, all aggravated by excessive worry and fatigue--the countless petty evils that obstruct the child's growth and undermine his energy in an unwholesome and unsanitary environment (p. 206).

Despite the fact that Burt conducted his research in the slums of Birmingham, England, in the early 1930's, many contemporary writers, Kirk (1940, 1949), Featherstone (1951), Johnson (1963) refer, in their discussion of the slow-learner's physical characteristics, to the findings of Burt. However, there are two comparatively recent publications with statistics which indicate that slow-learners may be slightly inferior to average children with regard to height and weight; these findings are by Ingram (1953), and the British Ministry of Education's Report of the Central Advisory Council for Education (England), which will

hereafter be referred to as the Newsom Report (1963).

Tables of statistics showing the heights and weights of slow-learners, compared with average scores for their chronological age level, follow:

TABLE 1*

MEDIANS AND OVERLAPPING UPON MEDIANS FOR PHYSICAL MEASUREMENTS OF THREE GROUPS OF FORTY-FIVE CHILDREN EACH, SELECTED RESPECTIVELY AS GIFTED, NORMAL, AND MENTALLY RETARDED ACCORDING TO I.Q., WITH AGE, RACE AND SEX CONSTANT

	I.Q.	Age (in Mths)	Height (in inches)	Weight (in pounds)	Height- Weight Coeffi- cient
Medians for:					
Group A - I.Q.'s over 135	151	117	52.9	74.0	1.31
Group B - I.Q.'s 90 to 110	100	117	51.2	63.9	1.19
Group C - I.Q.'s below 65	43	116	49.6	59.5	1.14
Per Cent of Group B That Reach or Exceed Median of Group A		58	20	18	24
Per Cent of Group C That Reach or Exceed Median of Group A		45	18	9	16
Per Cent of Group C That Reach or Exceed Median of Group B		45	28	36	36

*Table 1 is reprinted from Education of the Slow-Learning Child by C. Ingram, New York, the Ronald Press, 1953, (p. 11).

Although the slow-learners appear to be near normalcy, physically, "it is of particular importance that there are a relatively large number of defects of hearing and vision encountered among these slow-learning children (Featherstone, 1951:4)."

TABLE 2 **

HEIGHT AND WEIGHT OF TWENTY MENTALLY RETARDED CHILDREN
SELECTED AT RANDOM FROM EACH OF FOUR AGE GROUPS -
9, 11, 13, and 15 YEARS

			Height (in inches)			Weight (in pounds)		
Chronological Age	Sex	I.Q.	Average at age level	Actual Height of individual	Individual Deviation from average	Average* at age and height level	actual weight of individual	individual Deviation from average
9-0	G	75	52	53	+ 1	67	74.75	+ 7.75
	G	72		52	0	64	58.25	- 5.75
	B	73		51.75	- .25	64	64	0
	B	69		50.75	- 1.25	61	53	- 8
	G	74		49	- 3	55	55.25	+ .25
11-0	B	69	56	56.75	+ .75	81	82	+ 1
	B	73		56	0	77	81	+ 4
	G	74		55.5	- .5	75	67	- 8
	G	65		54.25	- 1.75	70	70	0
	B	66		51.5	- 4.5	62	68	+ 6
13-0	B	74	60	62.5	+ 2.5	104	108	+ 4
	B	64		60.5	+ .5	95	96.5	+ 1.5
	B	71		60	0	93	95.5	+ 2.5
	B	73		59.5	- .5	91	91.5	+ .5
	B	70		56	- 4	78	78	0
15-0	G	67	63	65.5	+ 2.5	123	120	- 3
	G	71		63.75	+ .75	118	129.25	+11.25
	G	64		60	- 3	105	106	+ 1
	G	70		59	- 4	100	101	+ 1
	G	57		58	- 5	96	111.5	+15.5

* Height and weight averages are taken from tables by Bird T. Baldwin and Thomas D. Wood in Thomas D. Wood and Hugh Grant Rowell, Health Supervision and Medical Inspection of Schools (Philadelphia: W. S. Saunders Co., 1927), pp. 82 - 83.

**

Table 2 is reprinted from Education of the Slow-Learning Child by C. Ingram, New York, the Ronald Press, 1953 (p. 12).

2. Behaviour and Personality

Behaviour and personality are related both to developmental status, or rate, and to physique and size (Abrams, 1964:8). Lightfoot's (1951) research study comparing the personality characteristics of slow-learners and bright students indicated that there is a statistically significant difference in favour of the slow-learner in the attributes of self-distrust, physical timidity, dependence, and deference. Bright students excelled over the slow-learners in achievement, creativity, dominance, and curiosity.

In general, the behaviour traits of slow-learning children as defined above indicate the deviations found in children forced into a position where there is a discrepancy between their performance and the requirements of their school environment. Thus, the school situation is a continuous source of frustration for these slow-learners.

Johnson (1963) feels that as these children in the secondary grades progress towards adulthood, they tend to concentrate more highly on the present or immediate goals than the normal student: "They appear to be less able to project into the future, and because the unknown is threatening, they tend to ignore the future and do nothing about it (Johnson, 1963:51)."

3. Educational Growth and Ability

The slow-learner creates a difficult educational problem. Johnson (1963) indicates that, in slow-learners, "general intellectual slowness is evident in all phases

TABLE 3*

APPROXIMATE MENTAL GRADES FOR CHILDREN OF
DIFFERENT I.Q.'s AT CHRONOLOGICAL
AGES EIGHT TO THIRTEEN YEARS

I.Q.	Mental Grade at Chronological Age of:					
	8-0	9-0	10-0	11-0	12-0	13-0
130	5.4	6.7	8.0	9.3	10.7	11.9
120	4.6	5.9	7.0	8.2	9.4	10.6
110	3.9	4.9	6.0	7.1	8.3	9.3
100	3.0	4.0	5.0	6.0	7.0	8.0
90	2.2	3.1	4.0	4.9	5.9	6.7
85	1.9	2.7	3.5	4.4	5.3	6.0
80	1.5	2.2	3.0	3.9	4.6	5.5
75	Kgn.	1.7	2.5	3.3	4.0	4.8
70	Kgn.	1.3	2.0	2.9	3.5	4.1

* Table 3 is reproduced from How to Increase Reading Ability, by A. J. Morris, New York, Longman's Green, 1956 (p. 313).

of their development (p. 43)," starting at the pre-school level and following "throughout school and into adulthood (p. 43)." Throughout this progression, the discrepancy between his mental age and abilities and those of normal children continues to increase.

The most marked difference between slow-learners and normal students, was pointed out by Featherstone (1951):

...it is with regard to intellectual traits, especially higher processes, that slow-learning children are conspicuously different from the average...it is particularly in the higher complex mental operation of reasoning that they fall short. This is to be expected, because reasoning is the exercise of intelligence (p. 7).

Johnson (1963) corroborates this by stating that: "Slow-learners are...unable to carry on reasoning and thinking activities as deeply or comprehensively as the normal learners (p. 43)."

Although the slow-learners are not sufficiently retarded so as to be placed in special classes, neither are they capable of profiting satisfactorily from the teaching of regular classes. In terms of program planning, "these students cannot be conceived of as 'late-bloomers' who will eventually catch up if given sufficient time (Johnson, 1963; 45)."

The slow-learner learns fundamentally the same way that other pupils learn--from and by experience; he purposes and plans, imitates, thinks and reasons, experiments, generalizes, draws upon past experiences, and transfers or reconstructs in order to meet new experiences. But he does not think or reason as well as the average child (Featherstone, 1951; Ingram, 1953; Johnson, 1963; Younie, 1969). He is:

...less imaginative, less able to foresee the consequences of an overt or implicit course of action, and is inclined to reach conclusions without adequately considering the alternatives, or without the benefit of

TABLE 4*
MENTAL AGES FOR INCREASING CHRONOLOGICAL AGES**

IQ	Slow learner's chronological age										
	6	7	8	9	10	11	12	13	14	15	16
70	4-3	4-11	5-7	6-4	7-0	7-9	8-5	9-2	9-10	10-6	11-3
75	4-6	5-3	6-0	6-9	7-6	8-3	9-0	9-9	10-6	11-3	12-0
80	4-10	5-7	6-5	7-2	8-0	8-10	9-7	10-5	11-3	12-0	12-10
85	5-1	6-0	6-10	7-8	8-6	9-4	10-3	11-1	11-11	12-9	13-8
90	5-4	6-4	7-2	8-1	9-0	9-11	10-10	11-9	12-7	13-6	14-5

* Table 4 is reprinted from an article by Lloyd M. Dunn, "The slow-learner - An Overview", in the N.E.A. Journal, Vol. XLVIII, No. 7., October, 1959, p. 20

** To derive the grade placement capacity subtract 5 from the mental age - the rule of 5.

much reflection (Featherstone, 1951:7).

The slow-learner insists upon quick results because he is impatient, and inclined to lose interest in the face of intangible or deferred returns.

4. Emotional Problems

Emotionally, slow-learners are very similar to normal children, with the same wants and needs of affection, social recognition, and achievement. Emotional problems frequently stem from constant frustration, "the result of past experiences which in too many instances have not been of positive value or of a satisfying nature (Johnson, 1963:49)." With their limited intellectual development, the slow-learners are frequently unable to solve these problems, and drift into the category of "discipline problem" because of their frustration. Delinquent behaviour and attitudes are "a reflection of their reactions toward continuous frustration, failure, and subjection to meaningless activities--a perfectly normal reaction (Johnson, 1963:57)."

5. Language and Reading Characteristics

Through communication, the child comes to understand life around him, and is able to associate with his peers and adults. From year to year, his need to understand and master the spoken language and its printed or written symbols increases. As he grows older, not only must the student be able to communicate orally, and act upon what he hears; he must also be able to interpret and act upon what he sees in

printed form in many life situations.

The slow development of language, and the implications of this developmental lag for the reading process are of central importance to this thesis. Because of this, a complete chapter will be devoted to the discussion of language and reading characteristics of the slow-learner later on in this study.

The general standards of literacy of these children-- a substantial proportion of our future working population-- are cause for concern because of the sociological implications which are imposed by the semi-literate:

One of the reasons why there is a quite proper anxiety over the general standards of literacy today is not that fewer and fewer people can read and write, but that more and more people need to do so with greater competence (Newsom Report, 1963:5).

The Sociological Implications of the Incidence of Slow-Learners

Almost all authors writing about slow-learners conclude that the incidence figure stands between 15 and 20 per cent (Havighurst, 1958; Witty, 1961; Chidley, 1963; Johnson, 1963; Abraham, 1964). Theoretically, if the Binet Intelligence Test standardizations are used, the projection for slow-learners is twenty per cent (Terman and Merrill, 1937).

This indicates that the slow-learner constitutes approximately one-fifth of the students in the secondary schools, students who will eventually become one-fifth of the citizens, one-fifth of the workers, one-fifth of the

parents, and one-fifth of the consumers. The future role of these slow-learners, politically, socially, and economically is vital to the life of the nation.

The education which these slow-learning children acquire is of major importance:

They will do their share of the work of the world, they will cast their votes, they will participate in activities of labour unions and farm organizations, they will make homes. What they become, the ideas they develop, are vital to our national welfare (Caswell, in Featherstone, 1951; the Introduction).

Despite efforts to cater to the slow-learners in the secondary grades, using means such as special Pre-employment classes and Junior Vocational Schools, there is still much unrealized talent, especially among children whose potential is masked by inadequate powers of language and limitations of home background.

According to the Newsom Report, (1963), the future pattern of employment will require a much larger pool of talent than is available at present. An economic argument, expounded in the Report, is that:

...at least a substantial proportion of the "average" and "below average" pupils are sufficiently educable to supply that additional talent. The need is not only for more skilled workers to fill existing jobs, but also for a generally better educated and intelligently adaptable labour force to meet new demands (p. 5).

Technological progress requires increasing proportions of trained and technical manpower in our working population; therefore, there will be a correspondingly smaller demand

for unskilled and semi-skilled labour. Expanding employment on service occupations also makes many new demands on employees. It would appear that it is these trends which should be determining the vocational pattern to which the education of the slow-learners is geared.

If there is doubt as to the need to provide a suitable, specifically structured education for the slow-learner, there should be considered the fact that 20 out of every 100 students chosen at random means that Alberta alone has several thousands of slow-learners in the secondary grades.

A consequence for the general welfare in permitting that number of students to enter a world of work for which they are untrained and unskilled will be a decrease in the capacity to produce, and consume.

These students need all the resources the school can give them to meet the taxing demands on them in their work, and in their personal lives. Frustrations caused by unsuitable school programmes and teaching methods express themselves in apathy or rebellion which results in human wastage that the country can ill afford, humanly or economically, since one outcome of rebellion is delinquency. "Opportunities for, and stimuli to, delinquency are more often present in the environment of slow-learning pupils than is the case with brighter pupils...it might well be said, then, that the slow-learning environment predisposes toward delinquency (Featherstone, 1951:10)." Liddle, (in Johnson, 1963:174), in his study of children with low ability in

TABLE 5*

GRADE TOTALS OF ALBERTA'S STUDENTS IN THE 1967 - 1968
SCHOOL YEAR, AND THE APPROXIMATE GRADE TOTALS OF
SLOW LEARNERS

Grade	Students Registered in Alberta Schools, 1968	20% of Alberta Students - the 'Slow Learners'
Gr. I	38,550	7,710
Gr. II	38,277	7,655
Gr. III	36,715	7,343
Gr. IV	36,084	7,216
Gr. V	34,408	6,881
Gr. VI	33,403	6,680
Gr. VII	34,239	6,847
Gr. VIII	32,336	6,467
Gr. IX	29,491	5,898
Gr. X	27,172	5,434
Gr. XI	22,813	4,562
Gr. XII	22,484	4,496
TOTAL	385,972	77,189 (approx.)

* Table 5 is compiled from Statistics from Province of Alberta, Department of Education, Annual Report, 1968, The Queen's Printer, Edmonton, 1969.

Quincy, found that one out of five had been in trouble with the law, "and at an age younger than the peak delinquency period (p. 174)." Thus, it appears that the circumstances surrounding the slow-learner--the frustrations encountered at school, the environment of less-favoured communities, poor home conditions, and so on--all contrive to contribute toward this human wastage, for the slow-learner's predisposition to delinquency may be followed by apprehension and incarceration.

From a sociological aspect, a thought-provoking comment by Liddle and Long (1958) underlines very aptly the far-reaching implications of the slow-learner. In discussing the results of their research study involving a group of children whose I.Q.'s ranged from 77 - 118, with a mean of 92 (i.e. below average), Liddle and Long indicate the tendenc toward families of slow-learning children, usually children whose parents were drop-outs at fifteen years old:

Until we can help children from such (unsuccessful) families to be happy children whose academic and emotional needs are being met, we will continue to raise generations of unsuccessful families, families whose problems demand a lion's share of the time and effort of the community's educational, social work, and relief agencies (p. 149).

Summary

Characteristics of the slow-learners indicate that physiologically, they are close to average in physical

development and appearance, although they tend to be prone to a plurality of minor ailments causing excess absence from school.

Behaviourally, educators are not favourably impressed with the slow-learners; they tend to be discipline problems. But this behaviour pattern is the result of countless frustrations encountered in their attempts to succeed in academic areas.

Because of his slower intellectual development, reflected in an intelligence quotient within 1.625 and .625 standard deviations below the norm on a standardized verbal intelligence test, the final intellectual level of the slow-learner will be below the average for the general population. Although they are not sufficiently retarded to be placed in a special class, neither are they capable of profiting satisfactorily from the regular classroom teaching.

Emotionally, the slow-learners have the same needs and wants of normal children, but find it difficult, intellectually, to overcome obstacles to their securing these needs and wants.

It is the slow development of language ability which is one of the slow-learner's most noticeable characteristics. Although they follow the same developmental patterns as the normal child, they develop more slowly, and remain at each stage of development longer than the average child. Their slowness in language development is reflected in their need for a longer readiness period before beginning to read, and

in a circularity of problems which accompanies their reading development.

Sociologically, the slow-learner constitutes one-fifth of our population. Because unskilled and semi-skilled jobs are decreasing, the full potential of these children must be exploited in order that they may be trained for technological work. At the same time, education must be made meaningful so that they do not become frustrated, rebellious, and thereby drift toward delinquent behaviour. Only by education is it possible to stop the cycle of slow-learners which appear to be reared throughout each succeeding generation.

Also from the sociological aspect, the child's needs require that he be able to achieve socially, and that this achievement be recognized. But students do not achieve at the same rate, nor in the same fashion. In the secondary grades, average and above average students may be preparing for post-secondary training, or a university education. The slow-learner will be preparing for his future job.

An undifferentiated curriculum cannot presume to take care of the needs of the slow-learning student; a differentiated curriculum is essential.

CHAPTER III

A DISCUSSION OF LITERATURE PERTAINING TO THE ELEMENTS OF CURRICULUM, THE FORMULATION OF OBJECTIVES, AND LEARNING EXPERIENCES

Introduction

Since this thesis is concerned with the structuring of a curriculum for the slow-learner in the secondary grades, the discussion of related literature will examine curriculum trends in past decades to reveal the bases from which curricula in general, and in specific areas of learning, have been constructed.

In this chapter, then, there will be defined the terms "curriculum" and "instruction," which definitions will be used throughout this thesis. Following the statement of definitions, the elements of curriculum will be discussed. In section four of this chapter, there will be an examination of the formulation of curriculum objectives and their accompanying learning experiences, as seen from historical, psychological, and sociological viewpoints.

Curriculum and Instruction, Defined

For the purpose of this thesis, in order to think clearly and communicate about the curriculum, it is essential to arrive at a working definition. This is not an easy task, for there are many problems encountered in defining the concept of curriculum.

Due to the evolving concept of the nature of

curriculum, most current definitions are broad and sweeping; this is demonstrated by Phenix (in Short and Marconnit, 1968) who states that:

...the commonly accepted definition of the curriculum has changed from content of course, and lists of subjects and courses to all the experiences which are offered to learners under the experience of the school (p. 15).

Even more global is the definition of curriculum by Stake (in Tyler, Gagne, and Scriven, 1967) who says:

A curriculum is an educational program. It can be informally organized; or formally organized: what is taught in an instructional film. A curriculum, defined in this way, could be a mere lesson, or it could be the curricular program of a composite high school, or the entire educational program of a nation. A curriculum may be specified in terms of what a teacher will do, in terms of what the student will be exposed to, or ... in terms of student achievement (p. 4).

Because of the unwieldy and general nature of these definitions of curriculum, the interpretation of the concept of curriculum to be adopted for this study will differ from these generally accepted terms. There will be a differentiation between curriculum and instruction.

Johnson, (1968) following a trend initiated by Macdonald, (1965) established effectively a dichotomy between curriculum and instruction. The former, he defined as being a structured series of intended learning outcomes whose purpose was to guide instruction and to furnish criteria for evaluation -- in other words, it would be a statement of intentions. "Instruction" was defined as consisting of a

series of planned learning experiences, methods, instructional techniques, the method of evaluating the occurrences, and the results of the program. These two definitions appear to reflect the thinking of Tyler. "Curriculum" as stated here stresses educational objectives; "instruction" as outlined by Johnson is paralleled by Tyler's statement that, by defining the educational results as clearly as possible (that is, the objectives or learning outcomes in Johnson's concept of "curriculum"), "then the curriculum maker has a useful set of criteria for selecting content, deciding learning experiences, deciding kinds of teaching procedures to follow, or carry on all further steps of ...planning (Tyler, 1950:40)."

Statement of Definition

The definitions of curriculum and instruction which will be used in this study, then, are the following, quoted from Johnson (1968):

Curriculum...is a structured series of intended learning outcomes, the purpose of which is to guide instruction, and to furnish criteria for evaluation ... Thus, the curriculum will be a statement of intentions, and not a report of occurrences or results (p. 4).

It seems that Johnson's definitions tend to allow for the balance of curriculum elements stipulated by Taba (1967: 4), and demonstrated by Tyler (in Smith and Tyler, 1942, and Tyler, 1950). A global concept of curriculum tends to become content or learning-experience oriented, but the notion of "curriculum" as defined connotes a theoretical, objective element. "Instruction," as defined by Johnson,

connotes the content and learning experience aspects. By utilizing these dichotomized definitions, there should be attainable greater facility in structuring the elements of content and learning-experience upon the theoretical "curriculum" base of objectives. In this way, although the content and learning experiences may change, the criteria used to formulate the objectives should remain relatively stable, thus allowing for a smooth continuity of instruction.

The Elements of Curriculum

The elements of curriculum developed by various writers in the curriculum field may differ slightly, because the elements are dependent upon each individual's stated definition of curriculum. There are three elements, however, which appear to be common to most writers, and it is these which will be discussed in order to indicate the changes of emphasis in the curriculum over the years.

Those common, basic elements comprising the curriculum include: the objectives to be attained, the selection and organization of content, and the selection and organization of learning experiences to be provided for the students. Differences among the various curricula are due to the differences in emphasis accorded to each of these elements, and from the degree to which there is consistency and balance among these elements (Taba, 1967:4).

In order to illustrate the trends in growth of

curriculum structure, the work of three outstanding writers will be summarized briefly, and evaluated -- the works of Bobbitt, Rugg, and Tyler. These men were key figures in terms of writing, and in promulgating ideas through their conceptualization of the curriculum.

Franklin Bobbitt

Prior to the advent of Bobbitt's publication (1918), The Curriculum, the curriculum was classically oriented in content and in structure. The main objective was to discipline the faculties of the mind, such as memory and reason, by the use of drills and proper mental exercise.

Bobbitt, however, in structuring a curriculum used an analogy of industry as his controlling metaphor (Seguel, 1966: 80). He viewed the curriculum as a means for processing the raw material (the child) into a finished product (the ideal adult), which was determined by standards set by the community. Those abilities needed by man to carry out life activities were analysed, and the findings of this analysis comprised Bobbitt's objectives.

The curriculum was viewed by Bobbitt from two aspects: "(1) It is the entire range of experiences, both undirected and directed, concerned in unfolding the abilities of the individual; or (2) it is the series of consciously directed training experiences that the schools use for completing and perfecting the unfoldment (Bobbitt, 1918:43)." Thus he wanted to arrange the child's activities so that his potential abilities would unfold; therefore, the dimension of

experience was essential to the process by which the child changed into the ideal adult in this era of social efficiency (Seguel, 1966:85).

Bobbitt's concept of the ideal man was limited and confining, for he assumed there was no single type of ideal man who possessed these preferred characteristics. He did not see the potential of these characteristics as they applied to other individuals; rather, he used a stereotyped amalgam as his ideal man.

The main objective of Bobbitt's curriculum was that the child be socially trained through education so that he was prepared to solve problems confronting him when he became an adult. The prime emphasis, however, was an academic-type learning which had social utility, and the curriculum remained content oriented, geared to the academically able.

Bobbitt suggested a new method of organizing curriculum, that of selecting objectives according to social needs (Seguel, 1966:88). That this new method represented a shift in focus from content to the method of formulating the content did not alter the fact that the content-oriented emphasis produced a "sterile curriculum and rigid lesson plans (Taba, 1967:4)" throughout the 1920's. The strong emphasis on spelling out detailed sequences of specific, factual content completely disregarded the processes of learning or objectives, other than that of content acquisition.

Charters, in his work with Bobbitt, claimed that this curriculum would maintain the status quo (Seguel, 1966:122), although Bobbitt insisted that his scientific analysis of the ideal adult would disclose the kind of individual needed by society, and would have far-reaching effects on education. To some extent his prediction was correct. There does persist an emphasis in the school to form a "finished product" who will enter university or go into the world of business (Johnson, 1963:21). The content of the curriculum is still basically academically oriented: it has only been within the last decade that high-school curricula began to be widely classified into academic, business, and technical categories, and these remain undifferentiated within themselves.

Harold Rugg

Rugg did not like the exclusive reliance upon the analytical method to formulate content, as proposed by Bobbit. Rather Rugg idealized the progressive schools which had arisen from the rebellion of the progressive education movement against the one-sided curriculum of the 1920's.

Rugg gave lip-service to progressive practice in his writing by the "lavish use of such terms as 'creativity' and 'growth', and he talked of a 'program for guided living' or of 'materials and activities' or of 'creative child growth' (Seguel, 1966:119)." He wanted to develop

in the child the intellectual understanding needed to live in the modern industrial society of that day.

According to Taba (1967), in the progressive schools, "matters of curriculum origins and content were generally afforded perfunctory attention; the emphasis was on the process of learning, and on the learner as an individual (p. 4)." This emphasis tended to result in a teaching style and curriculum that was somewhat deficient in content, particularly when it was compared with Bobbitt's content-centered curriculum, and which had few objectives other than to emphasize the devotion of attention to the child and what was socially useful. In Rugg's own words, the curriculum was: "...the pupil activities and the materials of instruction that arouse them (Rugg, 1926:426)."

But although he sought to analyse and understand how the children's meanings were growing, what new relationships they were seeing, what helped them to generalize and solve problems, and whether their values were distorting their judgement, Rugg did not use these discoveries as the basis for a suggested series of activities and experiences that would later foster insight, creativity, and improved child living. Rather, he worked "to develop techniques to improve intellectual insight in children...to accustom young people to problem-solving, verification, weighing of evidence...(Seguel, 1966:120)."

Thus, it can be surmized that in this child-centered era, when, ideally, the learning experiences should have

been geared to the abilities of the child, this did not in fact occur. Despite the deficiency in content, as discussed above by Taba, the curriculum was still geared to the children who were intellectually able; it was an undifferentiated curriculum, despite Rugg's "lip-service to progressive practices (Seguel, 1966:119)."

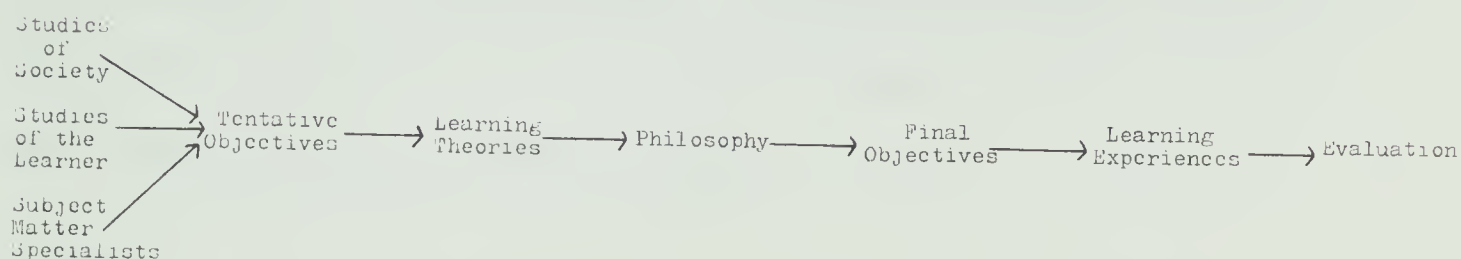
However, Rugg did make an important contribution to curriculum, and thus, to education, when he actively promoted efforts leading to the synthesis of thoughts about curriculum-making (Seguel, 1966:135), and this large scale synthesis and analysis rescued curriculum-making "from any hint of narrowness and superficiality (p. 136)."

Ralph W. Tyler

In contrast to Bobbitt, who stressed content, and Rugg, who stressed the process of learning and the learner as an individual, (i.e. the learning-experience), Tyler tended to emphasize the objectives as the basis of curriculum structure, meanwhile interrelating content and learning-experiences to assist in the formulation of objectives.

Tyler saw objectives as value judgements to be made by the curriculum expert (Emans, in Short and Marconnit, 1968:34); similarly, the selection of learning experiences and criteria for evaluation based on the objectives could also be viewed as modified expressions of values. This conceptualization of all educational objectives starting as values within the universe of possible values may be

seen more clearly in the model of Tyler's conceptual framework as presented by Emans (in Short and Marconnit, 1968: 36).



Thus, while Bobbitt saw the content and learner within the framework of the learner's role in society, Tyler regarded the learner and content from sociological and psychological aspects, in close relationships with objectives. Tyler strove to structure a curriculum which would be balanced, and which took into account the psychological differences of students.

The elaborate structure for decision-making in the formulation of objectives as postulated by Tyler suggests that it would be feasible to devise a curriculum sufficiently flexible and manipulative so as to cater to all students within the school.

The learning experiences selected according to the general tenets advocated by Tyler could ensure that the

teacher is fully aware of each student's interests, capabilities and needs; thus, learning experiences that were fully satisfying to the individual would be attainable by his carrying on the kind of behaviour implied by the objectives (Tyler, 1950:43). This type of experience, resulting in the satisfaction of the student, would not be attainable in the detailed, content-centered curriculum espoused by Bobbitt, nor in the basically child-centered curriculum as put forth by Rugg.

Summary

Curriculum planning involves decision-making in those areas concerning the elements of curriculum, namely: objectives, content, and learning-experiences.

Over the years, each of these elements has been emphasized at the expense of the others. The most balanced curriculum structure seems to be that of Tyler who stressed objectives, but who interrelated content and learning-experiences, thus stabilizing the curriculum.

Despite the evolution of curriculum structure, there has not been a corresponding evolution of a differentiated curriculum. Some attempts were made in the last decade to provide for students of differing abilities and aptitudes. This was explained by Hardy (n.d.) as being due to the realization that a "mass secondary education (p. 5)," brought about by the replacement of the slogan "a good education for a few" by the slogan "a better education for everybody" should not necessarily mean uniformity. In spite

of attempts to provide different streams and categories of courses in the Senior High Schools, there persist the traditional curriculum guides which "emphasize the element of content, which then determines the other elements of learning experiences and teaching strategies to be employed, and, finally, offer a list of vague objectives (Taba, 1967:5)." Education was, and, to a great extent, is still, geared to the average and above-average students.

Instructional Objectives and Learning Experiences

If an educational program is to be planned, and if efforts for continued improvement are to be made, it is very necessary to have some conception of the goals that are being aimed at (Tyler, 1950:3).

It has been suggested that during the last 10-15 years, the emphasis in curriculum structure has tended to shift to the element of content, reflecting the requirements of society and culture (Taba, 1967:5). However, in addition to content, there must be considered the nature of the learner, and the learning processes; all of these must then be weighed against the ultimate goals of education.

But objectives of the curriculum cannot be arrived at arbitrarily. An historical examination of objectives indicates that changes in society and in the way of life must be considered carefully as important sources of objectives.

According to Kliebard (1968), the year 1918 was an especially notable one in the field of curriculum, for during this year were published two principal sources from

which stemmed the instructional objectives of these early years. These were Bobbitt's publication, The Curriculum, and the Report on the Cardinal Principles of Education. This latter publication established the "Seven Aims" of education, a rather crude set of categories of life activity which included such aspects as health, command of the fundamental processes, worthy home membership, vocation, civic education, the worthy use of leisure, and ethical character. The quality of one's education was judged by the efficiency with which one was trained to perform these activities.

In the early years of the century, then, the efficiency movement in education, spearheaded by Bobbitt, espoused the doctrine of social efficiency. This stipulated that education was primarily the way of training an individual for his role in society; the objectives were secondary to content, which was determined by an analysis of life activities. The objectives were to develop within the individual the ability to perform efficiently in various roles, and were stated in highly detailed terms (Tyler, in Short and Marconit, 1968:251). Thus, the objectives were considered as having been achieved by the student when he had learned to make appropriate responses to all specific stimuli.

Despite Bobbitt's assertion that the abilities of the child unfolded because of the "range of experiences" offered by his curriculum by present day standards, the learning experiences undergone by the child did not concur with these objectives. "Learning experiences" to Bobbitt were

synonymous with "learning exercises", which in actuality were verbal recitations. According to Tyler (in Short and Marconnit, 1968:254), even laboratory exercises were primarily verbal recitations. The content element of Bobbitt's curriculum was minutely detailed, a corollary to the prevailing associationist theory in the psychology of learning, and every concept was a stimulus for the student's response which was memorized by the child. Thus, learning experiences were extremely restricted, and the dimension of experience by which the child changed into the ideal adult was a limited concept.

The impact of the progressivists did not succeed in adjusting the objectives to the needs of the child; rather, they stressed the learner and the learning process. Rugg, who "strove to base the method of curriculum making on the foundational disciplines...philosophy and psychology (Seguel, 1966:136)" did not consider the needs of the child as a source of objectives. Instead, the child had to fit the curriculum which, despite its progressive overtones, was intellectually oriented. Rugg did not use his knowledge of the child's learning technique to develop in turn more satisfactory learning experiences for all students. Rather, he strove to improve the child's intellectual insight, and neglected to gear learning experiences to the abilities of each child.

That Tyler was more sophisticated than many of his contemporaries in the field of curriculum is evidenced by

his attempts to correlate educational objectives and learning experiences. He established his objectives on the basis of considered judgement, utilizing evidence from various sources such as the learner, the society, subject specialists, and the philosophy and psychology adhered to by the school. Since these sources of objectives are important in that they establish some of the criteria for the curriculum, each will be examined briefly:

1. Studies of the Learner

Tyler (in Tyler, Gagne, and Scriven, 1967) defines learning as "a process by which the learner develops a behaviour that enables him to deal satisfactorily with the situation which he confronts in a way that more nearly achieves his purposes (p. 17)." Studies of the learner as a source of objectives would attempt to identify needed changes in the behaviour patterns of students which the educational institution would seek to produce. The investigation of the learners discloses information pertaining to their present status. This information is compared with what educators feel are the desirable norms of education, thereby indicating the needs of the child which must be satisfied in order to fill the gap.

Although the needs of the students are mandatory in the formulation of objectives, just as mandatory are the needs of each student, each deviate. In the study of learners carried on according to Tyler, there are bound to be certain data which are common to most children at each

specific chronological age level. These are the data which determine the educational objectives. By virtue of this process, though, the curriculum is then geared to the norm, to the needs of the average child. Apparently, the deviate is not considered, nor is he specifically catered to.

More recently, Tyler (in Short and Marconnit, 1968) discussed learning experiences, and stressed the provision for individual differences, thereby indicating his awareness of the deviate -- both the slow and the bright student -- as well as his attempting to correlate learning experiences with the objectives of education.

Tyler lists two factors which have accented individual differences: psychological studies which have identified the extent of differences among children, and the increasing visibility of individual differences brought about by the enrollment of children from heterogeneous ethnic groups and social classes. However, it is in the discussion of the devices to provide for differences among students that Tyler appears to reveal an inadequacy in catering to the deviate. Learning experiences were devised so that they included "adaptations in time given for completing the learning exercises, variations in the exercises or both (p. 254)." Where ability grouping was introduced, students were divided into superior, average, and slow groups, and differed only in the amount of time provided for learning exercises; the nature of the exercises differed only to a very minor extent. Later, "in the last twenty years (p. 255),"

the most atypical development to provide for individual learning experiences had been the listing of a large number of learning experiences from which the teacher selected appropriately for the class, group, or specific individuals.

Although there was an effort to integrate learning experiences for the deviate with the objectives, those discussed by Tyler (in Short and Marconnit, 1968) do not appear to be satisfactory. More time is of little use to the slow-learner unless the material is devised specifically for him; a "listing of...experiences" connotes a stereotyped group of interests and experiences to be selected by the teacher; the implication here, too, is that teacher must know each student very well to be able to choose the most effective learning experiences for that child. Little scope is left for the creativity of the teacher, or spontaneity of action in providing learning experiences for the slow-learner, who requires concrete, tangible experiences with quick results, as was outlined in Chapter II.

2. Studies of Contemporary Life Outside the School

The study of society as a determinant of objectives is not a new concept, conceived by Tyler. Nevertheless, studies of contemporary life provide a prolific source of information for suggestions regarding objectives.

Tyler (1950), proffers two arguments for analysing contemporary life in order to obtain suggestions for educational objectives; the first is:

Because contemporary life is so complex and because life is continually changing, it is very necessary to focus educational efforts upon the critical aspects of this complex life and upon those aspects that are of importance today so that we do not waste the time of students in learning things that were important fifty years ago but no longer have significance at the same time that we are neglecting areas of life that are now important, and for which the schools provide no preparation (p. 12).

The second argument arises from the findings related to the transfer of training:

Studies of transfer of training...indicated that the student was much more likely to apply his learning when he recognized the similarity between the situations encountered in life and the situations in which learning took place. Furthermore, the student was more likely to perceive the similarity between the life situations and the learning situations when two conditions were met: (1) the life situations and the learning situations were obviously alike in many respects, and (2) the student was given practice in seeking illustrations of his life outside of school for the application of things learned in school (p. 12).

In order to have manageable areas for investigation, it is necessary to divide life into various phases so that there would be no gaps in the study. In each phase, the purpose is to get information about that aspect of contemporary life likely to have implications for educational objectives.

Studies of contemporary life have included studies of individual life, of social groups, and of factors conditioning life in particular communities or areas such as the natural resources in the community, population changes,

migration, and social change. "These have been made on the assumption that education should help a community utilize most effectively its resources, to provide adequate preparation for persons who are migrating as well as those remaining within the community, to meet social changes... (Tyler, 1950:14)." To derive educational objectives from these studies, the data obtained must be interpreted; that is, "inferences have to be made from present status regarding gaps, emphases, and needs (p. 15)."

Tyler (1950) goes on to say that a good many courses have been built upon analyses made of life outside school. This is true of the work of both Bobbitt and Rugg, although there is little similarity in their objectives.

Bobbitt created his "ideal man" according to the standards of society, and his curriculum was structured with the intent that the child should become a stereotype of the ideal man.

Rugg, the Social Reconstructionist, wanted to educate the child so that he could fit into society. An example of his intentions is the well-known Rugg series of social-studies books which was developed from an analysis made of contemporary critical social problems. As an intellectual framework, his material was excellent in that he worked to develop techniques to improve intellectual insight in children. His goal, according to Seguel (1966), "was to accustom young people to problem solving, verification, weighing of evidence... Only thus, he reassured, could they

be ready to implement democracy as adults, and work to meet the challenge of contemporary life (p. 120)."

Rugg's ideal has an important place in the discussion of the slow-learner, for it indicates that he did not wish to educate the child to become an "ideal man"; rather, he wanted to educate the child to fit into his place in society. This implies very strongly that these slow-learning children, these deviates, have the right to a full place in society, just as other children have that right.

3. The Study of Subject Specialists' Suggestions

According to Tyler (1950), this source of objectives which is most commonly used when the curriculum is devised:

School and college textbooks are usually written by subject specialists, and largely reflect their views. Courses of study prepared by school and college groups are usually worked out by subject specialists and represent their conception of objectives that the school should attempt to attain (p. 17).

The ways in which the objectives formulated by subject area specialists, and the resulting content material to be taught in order to achieve these objectives must be indicated very clearly and precisely. Objectives and content material may not be adequate for all students within a classroom; nor may they be adequate for each student within a smaller group of deviates.

It was argued above that Tyler's provision of learning experiences for the individual differences in children seemed inadequate. At the same time, his discussion of the

organization of learning experiences is extremely valuable to all students. Criteria for organization are:

1. Continuity - i.e. the reiteration of desired behaviour through many learning experiences used.
2. Sequence - i.e. the gradation of learning.
3. Integration - i.e. relating what the student is learning in other fields at the same time. (Tyler, 1950:55, and in Short and Marconnit, 1968:255).

It would seem that these criteria would be most effectively and adequately set by the specialists in the field. However, if a differentiated curriculum were structured for the slow-learner, then the learning experiences could well be organized according to these criteria, also, but by subject specialists who possess a knowledgeable background of the characteristics of the slow-learner, as opposed to the academic learner. That is to say, those educators who have made a study of special education, rather than subject specialists per se. It has only been throughout the past two or three decades that the problem of atypical children has been of concern to society, and a more concentrated study of them is barely under way. Thus, it is all the more important that whatever curriculum be set for the slow-learner, the special educationists must be involved.

The heterogeneous collection of objectives this far obtained must be screened to eliminate contradictory and unimportant ones... (Tyler, 1950:22).

4. Philosophy -- the First Screen

The first screen for the many objectives derived from the three sources discussed above is the educational and social philosophy to which the school is committed, and which should determine those values deemed essential to a satisfying and effective life for each student.

Tyler (1950) stipulates that "for the statement of philosophy to serve most helpfully as a set of standards or a screen in selecting objectives, it needs to be stated clearly, and...the implications for objectives may need to be spelled out (p. 24)." Then those proposed objectives that are in harmony with the philosophy "will be identified as important objectives (p. 24)."

It is unfortunate that when a single curriculum is generated by a central body such as the Provincial Department of Education, the philosophy does not, or cannot take into consideration the circumstances of individual students; therefore, this important screen of curriculum objectives tends to take on stereotyped qualities in Departmental publications, to the detriment of the atypical students.

At this point, there becomes evident a problem in that sometimes there are conflicting aims imposed upon the formulation of objectives by the philosophy on the one hand, and the psychology of education on the other. Throughout the 1940's, and persisting into the next decade, the progressive education philosophy of a "mass secondary education (Hardy, n.d.:5)" came into prominence, with its ideal of a high

school education for all, and equal opportunity for all. At the same time, educational psychologists were emphasizing that all children are not equal intellectually, and the slogan of "a better education for everybody" should not necessarily mean uniformity; that is, all children were not able, either in ability or aptitude, to proceed through the twelve grades of school.

Some attempts have been made in the past decade to provide for students of differing abilities and aptitudes, although there still remains the problem of inflexible curricula, prescribed textbooks and references, and stereotyped objectives and evaluation methods. Thus it seems that even within the framework of the curriculum, there are conflicting aims between the philosophy and the psychology of education.

5. Educational Psychology -- the Second Screen

The psychology of learning must be formulated in concrete terms, both to check for its tenability and to see its implications in the curriculum.

From the point of view of slow-learners, an important aspect of the psychology of learning is that it may be used to distinguish goals that are feasible from those that are likely to take a long time, or are impossible of attainment at the age level contemplated (Tyler, 1950:25). The psychology of learning would render it possible to determine the objectives and the age levels at which each effort could be most efficiently employed.

Over the years, there have arisen conflicting and ambivalent problems concerning students from the point of view of cognitive vs. social learning. Current psychology tends to lean toward the recognition of social learning as being equally important as cognitive learning, a recognition which has resulted in the widespread practice of "social promotion," especially at the Junior High School level. That is, the student is promoted on the basis of his social learning rather than his cognitive learning. This implies, then, that despite the use of the psychology of learning to establish objectives for various grade levels, there will remain those students, who have been socially promoted, for whom the grade objectives are not feasible.

It would appear that it is due to the mis-application of the psychology of learning by the curriculum writers, that the individual cognitive development of each student at a given grade level is not catered to; rather, the curriculum seems geared to the developmental needs of the majority. Thus, because he is often promoted for social reasons, the slow-learner is carried along with the class, although he is "not capable of profiting from the offerings of the regular class (Johnson, 1963:55)."

The foregoing discussion of the sources of educational objectives indicates that Tyler's curriculum structure, although more comprehensive than those preceding it, was nonetheless academically oriented. This is corroborated by the educational objectives categorized by Tyler et al in the

Eight Year Study as being desirable objectives for the curriculum, and listed by Tyler (1950) as follows:

1. The acquisition of information (8)
2. The development of work habits and study skills (2)
3. The development of effective ways of thinking (1)
4. The development of social attitudes (3)
5. The development of interests (4)
6. The development of appreciation (5)
7. The development of sensitivities (6)
8. The development of personal-social relations (7)
9. The maintenance of physical health (9)
10. The development of a philosophy of life (10)

(The numbers in parentheses after the 1-10 sequence of objectives indicate the hierarchy in which the same objectives were listed in Tyler's 1942 publication).

It is interesting to note that when the objectives were first ranked by Tyler (1942), that which ranked highest was "the development of effective thinking." When these were revised later by Tyler (1950), the hierarchy was changed so that "the acquisition of knowledge" rated first, thus perpetuating the emphasis on academic learning into the post-World War II years, and on to the present day.

Despite this, the curriculum to be structured for the slow-learner in this thesis will be based on Tyler's principles of curriculum design. His formulation of objectives by deferring to the various sources outlined, and the

interrelating of objectives, content, learning-experiences, and the addition of evaluation, as the elements of curriculum, all combine to produce a balanced curriculum structure which will be manipulated so as to devise in turn a specialized curriculum for the slow-learners within the schools.

Concluding Statement of this Chapter

In terms of a current philosophy of education, each child is to be educated according to his aptitude and ability.

If this is to be accomplished, then it is important that there be a differentiation of the curriculum which is now geared to the average child with an average rate of learning.

However, from the aspect of the psychology of learning, children do not learn at an "average" rate. With the wide range of ability and aptitude within the classroom, it is not defensible to offer a single curriculum.

From the sociological aspect, the child's needs require that he be able to achieve socially, and that his achievement be recognized. But students do not achieve at the same rate, nor in the same fashion. In the secondary grades, the average and above-average students may be preparing for post-secondary training, or a university education. The slow-learner will be preparing for his future job. An undifferentiated curriculum cannot presume to take care of the needs of slow-learning students; a differentiated curriculum is essential for the atypical student.

CHAPTER IV

THE EDUCATIONAL IMPLICATIONS OF THE SLOW LEARNER FOR A DIFFERENTIATED CURRICULUM

Introduction

The need for a curriculum that will meet effectively the requirements of the slow-learner in the secondary grades, established above by an examination of the elements of structure, and, more specifically, the objectives of curriculum, has been the subject of discussion by a number of writers.

Their views will be summarized and presented in the second section of this chapter, following the introduction. In the third section, educational trends in Alberta will be examined. Finally, the apparent implications of sections two and three will be presented in order that criteria may be established for the structuring of a specific curriculum for the slow-learner.

Review of the Literature Pertaining to the Need for a Differentiated Curriculum

Thirty years ago, Kirk, (1940) stated that:

Although the education of the dull-normal child has long been a problem, little has been done to adopt the curriculum to his needs and abilities... The problem will remain until the secondary school adopts a flexible curriculum to meet the needs and abilities of the dull-normal child as well as the superior child (p. 175).

Over the period of three decades, it appears that

little has been done to provide a curriculum that will meet the needs of the slow-learners in the secondary schools. In 1969, Younie claimed that curriculum plans which effectively meet the needs of slow-learners are not prevalent. He said: "Rarely is the curriculum seen as an experimental statement of direction keyed to the careful observation of individual needs (p. 59)."

During the intervening years since Kirk's plea for a specialized curriculum, several writers have criticized the dearth of such a curriculum.

Schonell (1948) felt that dull children could rarely attain the scholastic standards of normal children, but they were capable of progress "commensurate with their limited level of general intelligence (p. 63)." Therefore, he advocated that a proper curriculum be formed for them.

"Certainly," claimed Featherston (1951), "there is no way by which the needs of the slow-learners can be met in any school if the curriculum must be based exclusively upon the kinds of things abler pupils can do...or (on) a uniform level of accomplishment (p. 57)."

That high schools generally have tended to cling to the tradition of an academic pattern despite the changing nature of the pupil population has been stated by Ingram (1953), who felt:

The majority of high schools provided for the individual differences apparent in the dull-normal only to the extent of "watering down" the subject areas and supplying courses in industrial arts and home economics...our high school

adolescents have diverse individual needs, and the needs of the majority of these pupils are not met (p. 316).

In a research study of the drop-out problem, Penty (1956) discovered that the most important single reason causing boys and girls to drop out of high school before graduation was the failure of the school to provide a curriculum and an emotional environment suited to the tremendous range of abilities of interestes in school-age boys and girls. She found also that a characteristic of the drop-outs was lower intelligence, although most of these students were educable. These findings argue that the students of lower intelligence -- i.e. the slow-learners -- have not had a suitable curriculum devised for them, and consequently have not been emotionally secure and confident in school due to the fact that "failure in academic subjects is prevalent (p. 5)."

The problem of an inadequate curriculum for slow-learners appears to be rife in Britain, also. Tansley and Gulliford (1961) comment upon slow-learners who should "not have merely a reduced curriculum, but one that is..... different in aims,method, and content (p. 13)." They stress that "instead of fitting the child to the curriculum, the curriculum must fit the child (p. 101)."

The thinking of teachers, administrators, and the general public, and the resulting practices of the secondary schools, hark back to the Latin Grammar School and early academy, according to Johnson (1963). Here, curricula were

primarily geared to the superior and average students. Objectives were twofold: "...either to prepare students to continue their formal education in institutions of higher learning, or to take a productive place in society, primarily in business (p. 21)." Although there was a wide diversity of courses available at the secondary level, Johnson deplored the lack of a curriculum designed specifically for the slow-learners stating that "An adaptation of a traditional curriculum with the prayerful hope that it will solve the problem will never accomplish the necessary task (p. 26)"; the program must be planned and designed for the slow-learner.

In 1964, Abraham called for "Current attention.... to encompass the slow learners....to draw attention to their needs, to suggest program adaptation, and to help develop them to capacities which are often unrecognized (p. 2)."

A voice of dissent with regard to the need for a differentiated curriculum issues from Kliebard (1970), who argues that it was only because of a "utilitarian justification of school subjects and their subsequent orientation toward different groups of students (p. 39)" that the question of differentiated curricula for different identifiable groups of the school population arose. He asks what he seems to feel are rhetorical questions:

Does a difference in I.Q. of ten or twenty or thirty points dictate a different set of school subjects, or at least, radically modified content in these subjects?...Or, to use a different criterion, is the program

of studies controlled by one's probable destination in so far as it can be determined (p. 39)?

Judging by the views of the writers which have been discussed briefly above, and viewing these questions from the aspects of the sociological and psychological needs of the child, it would appear that the only answer to each of Kliebard's questions is an unequivocal "Yes."

It is safe to conclude from the comments made by the writers quoted above that the provision of a differentiated curriculum for the slow-learning student about whom this thesis is concerned is generally assumed to be necessary. But since this cannot be considered a newly developed problem for the schools, what provisions have been made for these slow-learning students in Alberta? And what educational trends in Alberta are causing more concern over the slow-learners and their education?

Educational Trends in Alberta

In the past decade, a new awareness concerning the atypical student has arisen. In Alberta, this awareness has been manifested by the setting up of special classes and schools in which there have been created for the slow-learning child programs allowing either more time for completing the secondary grades, or emphasizing vocational skills which will be utilized by the slow-learner in his future employment.

But before examining these facilities in greater

detail, there will be discussed briefly those educational trends in Alberta which necessitate these facilities:

1. The Retention of the Slow Learner in the Secondary Grades in Alberta

That the secondary schools of Alberta are attracting and holding more and more students cannot be denied.

Statistics obtained from the Annual Report, published by the Provincial Department of Education indicates a substantial growth in the percentage of retentions over the past few years. For example, in 1948, 53.7 per cent of the young people of high school age were enrolled in Grade IX. The following year, in Grade X, 38.3 per cent of these students were enrolled, and in 1950, only 31.5 per cent were enrolled in Grade XI.*

However, in 1966, 95.4 per cent of the students of highschool age were enrolled in Grade IX, dropping to 85.1 per cent enrolled in Grade X the following year, and 78.8 per cent who enrolled in Grade XII in 1968. (See Table 6 - Students Enrolled in Grade I, and the Percentage of Retention in the Secondary Grades, and Table 7 - The Rate of Retention of Students at the Secondary Level, on pages 65 and 66.

Impressive as these statistics may be, it should still be kept in mind that even now, there is a drop-out rate of

* It was decided to use Grade XI statistics as a ceiling since in recent years, many adults are returning to complete Grade XII, thus creating an inflated enrollment.

more than twenty per cent -- or one fifth -- of Alberta's high school students, mostly at the Grade X and Grade XI levels; presumably, this is after the end of the Province of Alberta's compulsory education period.

What, then, are the implications of these retention factors for the slow-learning students? Perhaps the most obvious is that, although some may be dropping out of school, many are remaining in the secondary grades because of parental pressure, a recognized need for as much education as each child can acquire, and because of the widespread lack of suitable work for these students. No longer is a Grade IX education deemed suitable for the working world.

Prior to 1940, a high school education was a matter either for the children of those who could afford it, and wanted their sons and daughters to have it, or for those who valued it so highly that they made a special effort. Thus, a Grade VII or Grade VIII education "was considered adequate for the rank and file of citizens, while a high school education was reserved for the sons and daughters of the intellectual, cultural, or economic elite (Hardy, n.d. ;5)."

After 1940, the progressive movement gradually took over, and persisted until the past decade. During this period, the Junior and Senior High Schools were -- theoretically -- more pre-occupied with taking over the whole student than giving him "either a thorough vocational

TABLE 6 *

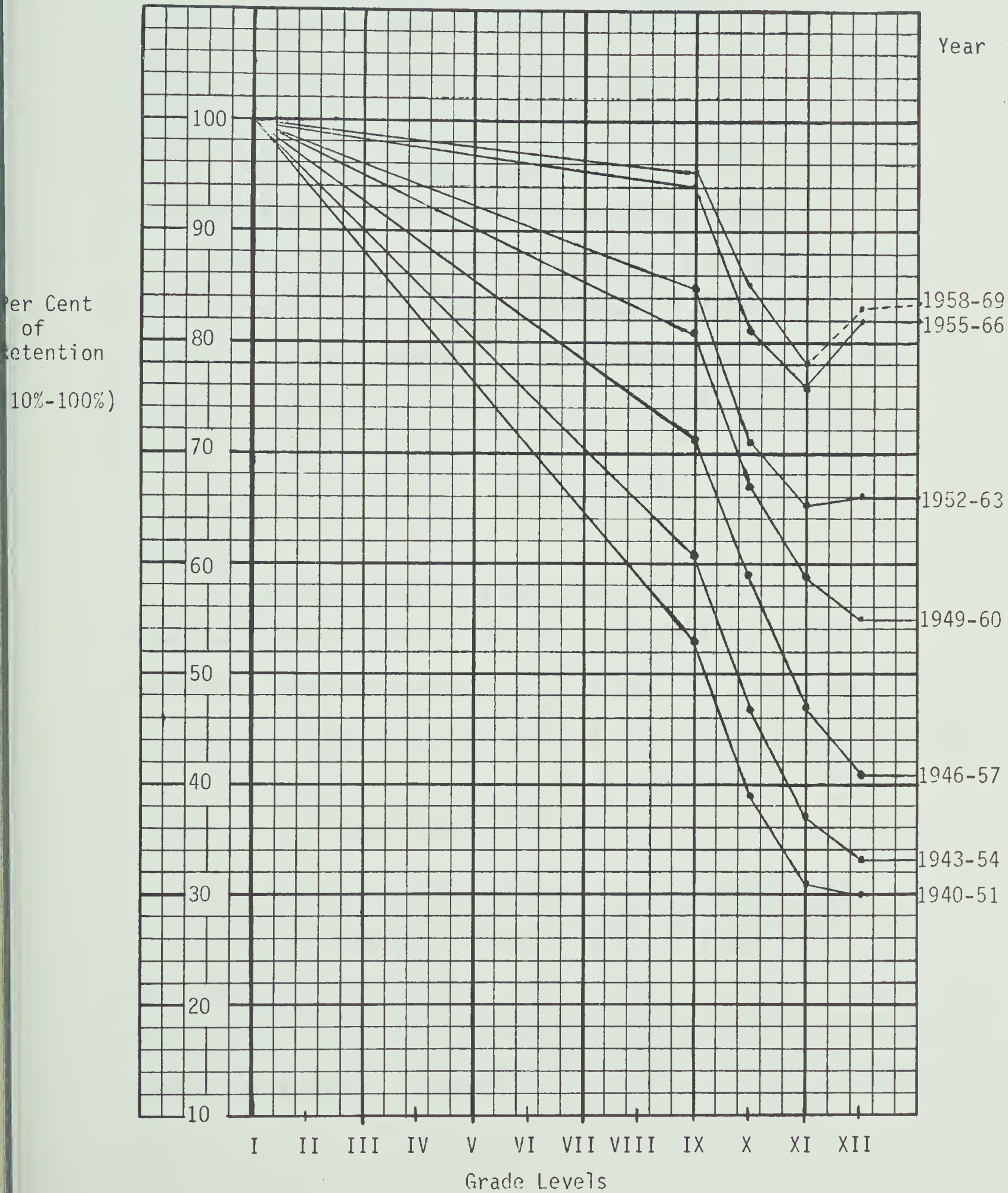
STUDENTS ENROLLED IN GRADE I, AND THE PERCENTAGE OF
RETENTION IN THE SECONDARY GRADES

Grade I			Grade IX		Grade X		Grade XI		Grade XII	
Year	Total En-rolled	% of En-rolled	Year En-rolled	Total % of Grade I En-rolled	Year En-rolled	Total % of Grade I En-rolled	Year En-rolled	Total % of Grade I En-rolled	Year En-rolled	Total % of Grade I En-rolled
1940	20,590	100%	1948	11,062 53.73%	1949	7,892 38.33%	1950	6,484 31.49%	1951	6,239 30.01%
1943	19,006	100%	1951	11,713 61.63%	1952	9,009 47.40%	1953	7,119 37.38%	1954	6,345 33.38%
1946	18,668	100%	1954	13,386 71.71%	1955	10,843 58.08%	1956	9,028 47.36%	1957	7,723 41.37%
1949	20,504	100%	1957	16,472 80.34%	1958	13,738 67.00%	1959	12,033 58.64%	1960	11,291 55.07%
1952	22,416	100%	1960	19,161 85.48%	1961	16,097 71.81%	1962	14,506 64.81%	1963	14,692 65.54%
1955	26,413	100%	1963	25,104 95.04%	1964	21,490 81.44%	1965	20,201 76.48%	1966	21,781 82.46%
1958	28,955	100%	1966	27,618 95.38%	1967	24,646 85.12%	1968	22,813 78.79%	1969	

*Table 6 is compiled from statistics from the Province of Alberta, Department of Education, Annual Report, 1940 - 1969, The Queen's Printer, Edmonton, 1941 - 1969.

TABLE 7

THE RATE OF RETENTION OF STUDENTS AT THE
SECONDARY LEVEL



training or a sound academic education (Hardy, n.d.:25)."

Despite the emphasis on the child and his learning experiences, an examination of the courses of study published by the Department of Education of the Province of Alberta indicates that the programme was basically content oriented. Courses were each based upon a textbook which had to be approved by the Department of Education, and even secondary references were rigidly prescribed.

While there were special classes for those children who were physically impaired or mentally retarded, within the regular school there was no differentiation of content, learning experiences or objectives for the differing ability levels or differences in aptitude among students, a situation involving the "slow-learners" as defined for this thesis.

During the past decade, some provision for the slow-learner was carried out on what might be termed a tentative, experimental basis by different school systems in Alberta. Some have been phased out, some are continuing; but in all cases, the curriculum is modified for these children, not specifically structured.

2. Provision for the Slow Learner by School Systems

Several school systems in Alberta have attempted to make some feasible provision for the slow-learners within the schools, both at Elementary and Secondary levels. This variety of attempts includes the Continuous Progress Plan,

Transition Classes, Modified Grades, Pre-Employment classes, special Senior High School Grade X equivalency courses, and the Junior Academic-Vocation Programme. Each of these will be described and discussed briefly below.

The Continuous Progress Plan (C.P.P.)

The Continuous Progress Plan has been in operation in Alberta since 1960, and has been adopted by several school systems. The Plan allows the slow-learner to remain in the Elementary school for an extra year to "catch up." That is, this child is expected to complete six grades in seven years. (See Table 8, Grade 1 Repeaters - The Potential Slow-Learners of Secondary Grades, on Page 69. There is little modification of material; rather, educators rely on the extension of time allowed to allow the child to complete the work. This appears to be a derivative of Tyler's device, the "adaptation of time (Tyler, 1968:254)," discussed previously in Chapter III.

Throughout the Continuous Progress Plan, the students used the same text-books, although the slow-group proceeded more slowly than the average group, and the "accelerated" students went ahead to complete six grades in five years.

The Edmonton Separate School System has discontinued the C.P.P., and, like some other systems, has reverted to the repetition of a grade. Under this plan, the slow-learner may be failed once in the primary grades and once in Division II, when necessary. This would imply that some children, those who repeat twice, take eight years to

TABLE 8

GRADE I REPEATERS - THE POTENTIAL SLOW-LEARNERS
OF SECONDARY GRADES

Year	Began Grade I for the first time	Repeats from Previous year	Total	Repeats - the percentage of the total (Approximate)
1940	16749	3841	20590	18.65%
1941	18031	2094	20125	10.38%
1942	16663	3423	20086	17.02%
1943	16271	2735	19006	14.39%
1944	15773	2922	18695	15.68%
1945	15846	2379	18225	13.05%
1946	16353	2315	18668	12.40%
1947	16557	2101	18658	11.31%
1948	17486	1852	19338	9.58%
1949	18751	1743	10504	8.50%
1950	20451	1802	22253	8.10%
1951	20236	1664	21900	7.60%
1952	20980	1436	22416	6.41%
1953	23781	1572	25353	6.20%
1954	26201	1738	27939	6.22%
1955	24519	1894	26413	7.17%
1956	25459	1729	27198	6.35%
1957	25673	1724	27397	6.30%
1958	27034	1921	28955	6.64%
1959	28834	1982	30816	6.43%
1960	30617	1919	32536	5.90%
1961	32577	1943	34520	5.62%
1962	33602	1943	35545	5.46%
1963	33182	2075	35257	5.88%
1964	34364	2190	36554	6.51%
1965	35073	2168	37241	5.93%
1966	35899	2261	38160	6.00%
1967	36050	2391	38441	6.22%
1968	36230	2320	38550	6.02%

Table 8 is compiled from statistics obtained from Province of Alberta, Department of Education, Annual Reports, 1940 - 1968. The Queen's Printer, Edmonton, 1941 - 1969.

complete six grades, and would be approximately fourteen years old, chronologically, when they complete Grade VI. What is done with these students, in other school systems is not known, but in the Edmonton Separate School System, they may be placed in the Transition classes.

The Transition Classes

At the end of Grade VI, in the Edmonton Separate Schools, the underachiever, as opposed to the slow-learner, may be placed in Transition VII, a special class which stresses individualized instruction, and, in theory, comprises a diagnostic year. One of the features of this semi-grade is that crafts and handiwork appear to be emphasized.

Based on the teacher's diagnosis, the student, at the end of Transition VII may be promoted to a regular Grade VII, a regular Grade VIII, or the "Special VII route" which is a non-academic programme of Vocational Education leading to the Pre-Employment Classes.

According to Quinlan's (1964) study of Transition classes, students followed "very general programs which differed according to level of achievement and rate of learning of different students (p. 119)." Behaviour problems were prevalent, since this type of student "appeared to be recommended for these classes more than low-achievers who were not behaviour problems (p. 120)." Once again, it should be stressed that the children in Quinlan's study, and those in the Transition classes now,

are low-achievers, not only slow-learners as defined in this thesis. Quinlan found students to have Intelligence Quotients ranging from 70 to 109 on individual intelligence tests c.f. the Wechsler Intelligence Scale for Children or the Stanford-Binet.

The Modified Grades VII and VIII

Modified Grades VII and VIII were the attempts made by the Edmonton Public School System to provide for slow-learners. It is interesting to note that in 1961, when the first Modified classes were inaugurated it was stated that: "criteria for admission have never been too clearly defined (Blacklock Report, 1964:53)," although the average I.Q. of the 1964 class at Strathearn Junior High School was 87.5, and it may be presumed that most classes were similarly endowed with slow-learners rather than under-achievers.

During the years the Modified Classes were in operation throughout the city, the main objective was "to provide an improved educational service for pupils whose school history indicates little success in the regular school program (Blacklock Report, 1964:1)." However, an examination of the Handbook for Modified Programs, 1968, indicates that despite this objective, the programmes still necessitated some of the basic Grade VII and Grade VIII textbooks. This would appear to imply that, like the Continuous Progress Plan, the students seemed to be allotted only more time in which to complete the work of the regular grade. From Modified VII, the student could

proceed to Modified VIII or a regular Grade VIII. From a Modified Grade VIII, he could go into regular Grade VIII, regular Grade IX, or into the Pre-Employment program.

The Modified classes have now been phased out, and the students who were to benefit from these have been put back into the regular classes, where they are given, and expected to produce, much the same material as the average and above-average students. The student who experiences difficulties in the regular programme in the Junior High School may be "promoted" into the Pre-Employment Programme, if he meets the criteria of age, lack of academic proficiency, and so on, or he may be retained through Grade IX, and "promoted" into a special Grade IX Vocational programme for Grade IX "D" students who are sixteen years or over, chronologically. These special classes are held in some of the regular Composite High Schools in the city.

Special High School Provisions for the Low Achiever

In some school systems, the student who has been passed through Grade IX and promoted into Grade X in the Composite High School will benefit by changes which have been brought about in the past few years to provide for him.

In an attempt to cater to students in the different "streams" -- academic, business, and technical-vocational -- differing levels of the basic core subjects were offered. For example, in the Edmonton systems, a student in the academic stream leading to University would take English 10 at the Grade X level; his counterpart in the business stream

might take English 15, which stressed business English; the technical-vocational student might take English 13, a review of Grade IX English. But what of the slow-learner who has been "promoted" into the special Grade X vocational programme and might be working at the Grade VI level, or even lower? These "special" programmes terminate at the end of one year, unless the student indicates ability and aptitude to continue for a second year. Thus, the slow-learner may be penalized because of his lack of intellectual ability.

In other systems throughout Alberta, the only concession made to the student of lower ability is that, whereas in order to achieve University entrance, a 60 per cent average is required in the Grade XII matriculation subjects, slower students are permitted to achieve their High School Diploma with a 40 per cent average for the same work and with the same materials as matriculating students.

It appears that at the Senior High level, as it was in the other provisions made for slow-learners, there is little or no differentiation between the low-achiever and the student who is slow due to intellectual incapability. Some adaptation of curriculum has been made, but not adequately, for the slow-learner, who requires a specifically structured curriculum based on research of his peculiar needs and limitations, and constructed by those who are knowledgeable in this field of special education.

The Pre-Employment Programme

Both Edmonton city systems have a Pre-Employment Programme. Low-achievers of at least fifteen years old, chronologically, are placed in special classes, academic work is cut to a minimum, and the students are given much experience in various vocational areas during their first year. For the second year, they choose a vocational area, and work in that area only -- for example, janitorial work, institutional care, ward aides, and so on. Some students continue on for three years, working in their chosen specialty over a period of two years. Edmonton Public Schools offer a special school-leaving certificate to these students, and state that they have liaison with various business firms into which the Pre-employment graduates are accepted.

The Junior Academic-Vocational Programme

Calgary Public School System has initiated the Junior Academic-Vocation Programme to serve the needs of those students who, they claim, are potential dropouts. Criteria for entry into the programme are fairly general. The candidate is identified by:

1. An I.Q. usually below 90, and scores on reading and arithmetic tests two years or more below grade level.
2. A limited vocabulary and general language difficulty.
3. Written work characterized by many errors in spelling, grammar, and sentence structure.
4. Poor work and study habits, and short attention span.

5. Little intellectual curiosity, initiative, imagination, or creativity.
6. Difficulty in analysing written or spoken material.
7. Difficulty in organizing facts and making generalizations. (Calgary Public School Board, Program Guide: 1)

Students go into the Junior Academic-Vocation Programme from Grade VI, and remain for three years, thus paralleling the Junior High School grades. After this, they may continue on in the programme at the Senior High Level.

At the Grade VII level, the student samples six of the available vocational courses, which include Beauty Culture, Building Construction, Business Education, Commercial Cooking, Home Care, Gardening and Greenhouse, and so on. By Grade IX, each student takes only two of the original six subjects, and many of the Grade IX students have part-time jobs in the community that are related to their vocational training.

The academic aspect of the programme includes mathematics, science, social-studies, language, reading, and literature; the "academic subjects are modified so vocational students will experience success. The practical aspect of academic subjects is emphasized (J.A.V. Handbook, 1969:5)."

Despite the modification of academic subjects, the instructional outline set up for these students has

prescribed texts and "readers," indicating that even though the work may be individualized, it is only individualized in so far as the time it takes to complete the set exercises and instruction based on the text.

However, of all school systems, Calgary appears to be farther ahead in trying to cope with the problem of these children than any other, even though it may be considered to be at the experimental stage. Other school systems have tried, and discontinued their attempts to cope with the slow-learner. One such system is Red Deer.

Red Deer School System

The Pre-employment type of programme was dropped two years ago in Red Deer schools. At the Junior High level, this consisted primarily of an extension of time; that is students completed Grades VII, VIII, and IX in four years, in classes of limited enrollment.

Now, because of the more flexible nature of the Junior High School programme, students complete Grade IX, and may pass into Grade X at the discretion of the school officials. Their special Grade X course for slow-learners is non-credit, and with vocational emphasis so as to offer students as much experience as possible. Nevertheless, there are still many drop-outs at the age of sixteen, and there appears to be some delinquency among these drop-outs. There is apparently some differentiation in instruction in the larger schools at the Junior High level -- children are grouped for mathematics, for example. But although there

is some modification of academic work basic textbooks and references are used.

These, then, are some of the programmes which have been, or are being, attempted in order to cope with the needs of the slow-learning students, who seem to be included in the larger group of low-achievers, about whom these programmes were centered. Many of these attempts have not proven successful; some have been discontinued. There are two factors, however, which appear to be common to all programmes: (1) teachers, although they may have inservice sessions, were not specifically trained for the task of teaching the atypical student by those knowledgeable in special education, and (2) instructional courses of study appear to be based on prescribed texts, with units of work to be completed. In other words, the curriculum may have been modified, but not differentiated for the slow-learner, who requires a specifically structured curriculum based on knowledgeable research of his needs and limitations.

The Implications - A Summary

It has been alleged (Musgrove, 1968) that the curriculum appears to be a contrivance for occupying the time of young people who are being kept in school for as long as possible, since there is little need of them in the world of production. The slow-learning pupil, who in previous years ceased to attend school as soon as he was legally able, now is unable to obtain the unskilled or

semi-skilled work he is capable of doing. He is encouraged to remain in school as long as possible to prevent his becoming one of the unemployed.

Yet, perversely, there is no specific curriculum created for him that will interest and challenge him, and help him prepare for the adult life ahead. According to Musgrove (1968), "our curricula are still geared to a society in which the majority would be engaged in manual work, knowledge once acquired had a permanent value, the age of puberty was 17, life was over at 40, and father never bathed the baby (p. 17)." The need now, Musgrove stated, is to discover "...how more academic curricula can be made to work with less naturally gifted people, at least at some stage of their lives... (p. 17)." Goodlad (1969) agreed that "There is no doubt about the need for better curriculum experiments...(p. 369)," and Tyler (1967) underscored the urgency in the need for a differentiated curriculum when he stated:

The task of the elementary school is now recognized as that of teaching all children, including the 15-20% who have not been making appreciable progress in learning before. Our society can find constructive places for no more than 5-10% of its people who are unskilled and untutored. The task of the high school is now recognized as that of educating a very large proportion of youth, including the 25-35% who have not been making substantial progress in earlier years. The changing structure of the labour force, the higher requirements for intelligent citizenship both make this demand (p. 15).

There are many slow-learners in our schools; the 1968 statistics of the Provincial Department of Education in Alberta indicate that in the secondary grades, there were some 34,000 students who could be deemed slow-learners, according to the twenty per cent projection by Terman and Merrill (1937).

Despite some attempts by various school systems to cater to the slow learning student, these have generally been unsuccessful due to various factors. However, some important aspects which might be partially responsible for the dissatisfaction with these programmes are possibly:

- (1) the lack of specific training of the teachers engaged in the special programme;
- (2) the lack of a truly differentiated curriculum; the curriculum for normal students has been adapted, adjusted, and manipulated for these atypical students, resulting in an unwieldy, decelerated curriculum that is still basically academic;
- (3) the lack of a curriculum and instructional courses devised by writers who are knowledgeable with the peculiar needs and abilities of the slow-learner. Apparently, the course of instruction is written by teachers in the school system, who, although they may have experiential background with these students, are not aware of the research regarding their psychological and sociological needs;
- (4) there is apparently no differentiation among the students labelled "low-achievers" -- that is, the various types of slow-learners are not defined, and all seem to be offered common learning experiences,

vocationally and academically.

It would seem, then, that prerequisites for the formulation of special programmes for the slow-learner are many, and obvious. Specific criteria to screen the students admitted are required, since this has implications for the curricula to be devised for these children. The curriculum, in turn, must be structured by those people who are knowledgeable about the students for whom they write; that is, writers with a special education background. Teachers should be interested in these atypical students, and be trained to deal with them; empathy is not enough. More research on these students is needed, as is more experimentation and follow-up studies, so that the most efficacious curriculum and learning experiences may be devised for them.

CHAPTER V

LANGUAGE AND READING DEVELOPMENT AND THE SLOW LEARNER

Introduction

Earlier in this study, it was stated that the general standards of literacy for the slow-learner were not satisfactory; in fact, they were cause for much concern. In all areas of life, society demands that both vocationally and socially, man must be capable of adequate communication.

This chapter will be concerned with a brief discussion of the development of the language and reading processes, and their implications for the slow-learner.

Section II will examine the development of language in normal and atypical children, the slow-learner and language at the secondary level, and language in the thinking process. Section III will deal with the reading process, and the reading characteristics of slow-learning students. Throughout sections II and III, inferences will be drawn with regard to the implications of language and reading development for the slow-learner. Finally, Section IV will comprise a summary, with conclusions being drawn from which the establishment of criteria will be made in order that a curriculum may be structured.

The Development of Language

Human communication is a sensory-motor process,

incorporating the motor reactions of the sign-maker (i.e. the speaker or writer), and the reception of those signs by the listener or reader (Dechant, 1964). Thus, language, broadly conceived, is the communicative vehicle for all human expression, be it oral, written, or gesticulatory (Hall, 1961). The discussion of language here will take under consideration both the oral and written aspects, their essential difference linguistically, and the resultant implications for the slow-learning student.

According to Frost and Rowland (1969), Pei (1958), and Pooley (1961), language has significance for the individual in that it is regarded as an increasingly valid indicator of intellectual development, culture, and personality.

The acquisition of language begins at birth, and general talking usually starts in the second year of life. It is probably during this early period that simple concepts are developed with greatest frequency (Frost and Rowland, 1969). Up to this point, the child has dealt with percepts and images, the foundations of concepts. Such development is pre-requisite to more elaborate conceptual formation, and to the eventual success in the literacy skills of reading and writing. By the second year, then, the child has developed considerable skill in auditory perception, and a limited skill to communicate orally.

Language develops, and receives meaning from and through experiences. A child learns early to use language

to manipulate his environment. According to Stroud (1956), the infant first uses speech responses to get the recognition of others; then, they bring him social approval, and get him the food and attention he craves.

After the beginning of differentiated speech communication, the child starts to manipulate the syntactical structure of language freely, and by the age of approximately six years, the average child has mastered nearly all of the common grammatical forms and construction; that is, those used by the adults and older children in his environment. The learning of vocabulary, though, continues on until late in life (Carroll, 1957:747).

Thus, during early childhood, the pre-school child learns largely through the simple method of imitation, resulting in his learning the patterns of dialect, intonation, pronunciation, and terminology characteristic of his parents and area of residence. The child who suffers language retardation during these early years will meet with "almost insurmountable problems on entering school," according to Frost and Rowland (1969:235). In other words, the child who arrives at school to enter Grade One lacking image-building, concept-developing and language-diversifying experiences common to the periods of infancy and early childhood will, by necessity, fail to achieve the goal of communicative literacy. In Piagetian terms, the child's intellectual structure may not be sufficiently programmed to "accommodate" the input of the school, which is geared

toward an assumed six-year old's intellectual repertoire.

Language Development and the Slow Learner

But what of the slow-learners' language development? One of the most noticeable characteristics of these atypical children is the slow development of language ability. Although these children follow much the same speech and language developmental patterns as other children, their development is somewhat delayed when it is compared with their physical maturation and chronological age. As well, the slow-learner can be expected to remain at each developmental stage for a somewhat longer period of time than the average child [Ingram (1953), Tansley and Gulliford (1961), Johnson (1963)]. Not only is the slow-learner's language development delayed, however; their lack of vocabulary and syntactic ability in their speech and language patterns have consequent implications which affect their cognitive development.

The speech and language development of the slow-learner, then, is inferior to that of the majority of children when they enter school, and according to the findings of Loban's (1966) research study, the gap widens year after year. The Newsom Report (1963) also indicates this gap in its statement:

There is a growing gulf between those who have, and the many who have not, sufficient command of words to be able to listen and discuss rationally; to express ideas and feelings clearly; and even to have any ideas at all. We simply do not know how

many people...never develop intellectually because they lack the words with which to think and reason (p. 15).

This lack of facility with vocabulary in the slow-learner becomes apparent when he first enters school. His vocabulary is still twenty-five to fifty per cent or more below the average for average children at this age level (Ingram, 1953). Loban (1966), in his research study of language ability, confirmed this by his data, which indicated that subjects who were more proficient in language achieved a median score of sixty-seven on the Watt's Kindergarten Test, consisting of one hundred items. Students low in language ability, however, had a median score of thirty-five on the same test.

Nevertheless, the slow-learners, like their average peers, develop through their acquisition of vocabulary throughout their school years; yet, by school-leaving age of sixteen, the majority have probably "not acquired more than 7,000 to 8,000 words, contrasting with about 15,000 or more for average children of the same age (Ingram, 1953: 25)." These word-totals offered by Ingram are somewhat controversial. Smith's study (1941) indicated that the vocabulary of the average Grade One child was 24,000 words. This was verified by Shibbles (1959), and Templin (1957). Joos (1964), however, came closer to Ingram's totals by his statement that "a normal vocabulary is about one thousand words per year of age, from about age three to about age twenty (p. 205 - 206)." This may be the more accurate

estimate when it is considered in the light of Watt's (1948) statement that the size of vocabulary alone is not a measure of language proficiency in children; that is, it is not the quantity of language which should be emphasized, but rather the range (i.e. the concepts and syntactic ability), and the quality (i.e. the extent of the child's concepts). Loban (1966), in his research into the language ability of Junior High School students, proffers the following conclusions as they applied to his low-group, students selected on the bases of socio-economic status, sex, race, and intelligence on language proficiency:

1. The low group used fewer words, fewer units, and less complexity (than the high or random groups).
2. Subjects in the low group said less than the high group, and had greater difficulty in saying it.
3. Measured by their style of speech, the low group was less fluent, and they were slower to respond in speech.
4. Structurally, the low group used many more partial expressions (i.e. incomplete sentence patterns) than the high group.
5. The expletive type of sentence (i.e. "Here is ..." "There are...") was seldom used by the low group.
6. There was a marked inferiority in the low group's use of nominals and predication. This discrepancy was not so much in the pattern, but rather, what was done to achieve flexibility within the pattern which indicated that their effectiveness and control of the language was

inferior.

7. Those children in the high group, being more proficient with language, were the ones who most frequently used language to express tentativeness. The low group seldom used supposition, hypothesis, and conditional statements in their spoken language because of their lack of skill.

8. It was the use of the adverb clause which most effectively discriminated between the high and low groups, more so than the noun or adjective clauses.

This abbreviated summary serves to indicate that it is in the range and quality of language, then, that the slow learner differs most from his average peers; this difference may be observed most clearly in this atypical student's attempts at definition.

Until the slow learner is about nine or ten years old, chronologically, he tends to define objects in terms of use: e.g. Ball -- "I play with it." At approximately twelve years old, objects are defined in terms of concrete characteristics, usage, or simple classification: e.g. "A nurse looks after people." or "A soldier goes to war."

Thus, the slow-learner's language development appears to be restricted due to both the lack of vocabulary with which to phrase responses, and a lack of understanding of the concepts of the word.

Bernstein (1961, 1970) has indicated that educational failure is often a language failure. That is, a child who

does not succeed in the school system is one who has not mastered certain essential aspects of language ability. This might be interpreted, in the instance of the slow-learner, as referring to the fact that a child may be unable to read, or to write, or to express himself adequately in speech. However, underlying the failure to master these skills, Bernstein feels that there is some fundamental gap in the child's linguistic capabilities. This gap may not necessarily be a lack of words, or an impoverishment of grammar. Rather, it would be due to what Bernstein terms a "restricted" code; that is, the child is deficient in linguistic ability because some functions of language may not have been accessible to him. The restriction "is a restriction on the range and uses of language. In particular, it is likely that he has not learnt to operate with language in...school (Halliday, 1969:35)."

Vocabulary develops as the child goes through school; concepts develop through thinking. However, the development of vocabulary and the development of concepts are not necessarily synonymous. The child may be able to develop a concept, yet be unable to verbalize it; alternatively, a child may be able to verbalize, yet have little or no cognition of the concept of which he speaks.

Since vocabulary is environmental, as well as developmental, there is also apt to be a difference between the informal language of speech, and the formal language of school. It is at this stage that the slow-learner meets

his first great obstacle. The pre-school child, used to the informal "casual" key, then enters school, to be faced with what Joos (1967) terms the "deliberative" key, in which structures are more varied and complex. It is here that the advantages of kindergarten may most clearly be seen, for when the child enters Grade One, he is accustomed to this language used by the teacher, language geared to the upper-middle-class, with its greater complexity and more highly structured patterns of language.

The slow-learner, already severely retarded in language when he enters Grade One, will find the language problems much harder to overcome than the average or above average students. Thus, at the primary level, the child "must be taught the subtle shadings of classroom language, know their meaning, and learn the choice of appropriate verbal responses (Younie, 1967:84)." As it is with all children, throughout the slow-learner's school career, "personal and social adequacy...social and intellectual growth...depend on being articulate; that is, on hearing words and language structures with which to think, to communicate what is thought, and to understand what is heard or read (Newsom Report, 1963:153)."

The Slow-Learner and Language in the Secondary Grades

At the secondary level, the slow-learner is still developing language skills which the average student mastered in the elementary grades. In contrast to the average pupil, who, at twelve years of age, has at his

command all the educational tools necessary to the pursuit of other less elementary subjects and activities, the slow-learner, throughout his entire school life, will be learning to acquire and apply the most elementary skills (Ingram, 1953:271). It is this argument which supports recommendation of both Loban (1966) and the Newsom Report (1963), that much more attention be given to language development in the education of the slow-learning student: "Though boys and girls learn to speak before they go to their first school, every school carries a major responsibility for its pupils' ...language (Newsom Report, 1963:153)."

Language and Thought

The acquisition and use of language is closely related to auditory and visual discrimination,

But language is more than a basis for hearing, seeing, and taking meaning to words. It is the very basis of the thinking process, and though it is related to auditory and visual discrimination, language development plays a very significant and unique role in reading readiness (Smith and Dechant, 1961:102).

Thus, as language skills develop, language serves an increasingly significant role in thinking: "The child's inner thinking and mental imagery are so closely associated with the vocal expression that he finds it difficult to separate them (Van Riper and Butler, 1955:4)."

Language and thinking are similar in that they require the same basic processes; that is, the ability to abstract, conceptualize, and form categories is a common

requirement, both for high level language and thought.

Kant, (quoted in Stroud, 1956), wrote "to think is to speak to oneself (p. 183)," and Watson (1920) referred to thought as the "subvocal use of language (p. 88)." Research by Jacobson (1932), Edfeldt (1959), Hebb (1958), and Van Riper and Butler (1955), indicates that certain vocal behaviour and lip and tongue movements accompany many thought processes, although Hebb did add that sentence construction indicates that thought and speech are not entirely the same process, since thought processes "run well ahead of our articulations (p. 60)."

In summary, then, as Dechant (1964:93) emphasizes, language involves thought, reading involves language, and reading is a thinking process. Thus, every reading lesson should be an extension of language, and a means for developing the child's linguistic skills.

Oral and Written Language - the Essential Differences

Upon attaining a reasonably high degree of proficiency in listening and speaking, then, most children are prepared to direct their attention toward the complex act of reading (Frost and Rowland, 1969:253). Anderson and Dearborn (1952) view learning to read as a process of associative learning. They draw attention to the order of development of the language skills: responding to spoken language, saying words, and, eventually, learning to read. Yet reading is not merely deciphering oral language written down. This is stressed by Wardhaugh (1969), who comments:

One has only to look closely at verbatim records of child or adult language, of discussions, and of unrehearsed dialogues to realize how heavily edited is the kind of written material we usually read. Writing is not just speech written down (p. 58).

Written language differs in content and structure from spoken language, and it is these semantic and syntactic differences which demand that the reader learn to process messages conveyed graphologically somewhat differently from those he has learned to process through speech. Much of the content of writing is different from that of speech because writing allows for (and occasionally, demands) a more deliberate kind of language than does speech. "The utterances of the spoken language," states Wardhaugh (1969), "are generally far less edited than sentences of written language (p. 56)." Written language is more complex, then, and less redundant than the spoken language; furthermore, it offers no opportunity for the reader to question the writer to seek clarification of his comments.

The differences in syntactic structures in oral and written language render it more difficult for the reader to abstract meaning. Such clues to meaning as stress, pitch, intonation, and juncture are not as readily or easily detected by the reader as they are by the listener simply because these clues to meaning are not present in printed matter; rather, they have to be supplied by the reader. Thus, the reader must learn to re-create the stress and intonation underlying the written sentences on the page

before him through aids of punctuation and by knowledge of particular varieties of writing so that he can read appropriately to those less redundant semantic structures used in writing. In other words, the accomplished reader must learn to process symbols in a left-to-right sequence, with an awareness of the subtle differences between speech and writing; that is, between the stops, starts and mazes of the spoken word in contrast to the controlled, more complex syntactic structure of the written word.

But what are the implications of this for the slow-learner? It has been established that his oral language is deprived. Now it appears that equally great will be the problem that his reception of language in its written form will also be deprived since the written word increases in complexity. The slow-learner finds it difficult to abstract meaning much beyond the literal level in spoken language, with all its clues of stress and intonation. This difficulty will be compounded by the syntactic structural differences in written language, and point out its implications for the need of more emphasis on the difference between written and spoken language for these students.

In the next section, which comprises a discussion of the reading process, there will be outlined further those difficulties encountered by the slow-learning child, particularly at the secondary level.

The Reading Process

Before any discussion of the reading process, it must be made explicit as to what comprises the concept of reading used in this study. Because of its complexity, the definition of the term "reading" is almost an individual task, but for the purpose of this discussion, the following definition will be used: Reading is thought which is triggered by printed or written symbols. These may be in the form of words or other types of symbols.

There must be interaction between the reader and the content. This is essential because it indicates that the learner is actively participating, bringing to the printed page his knowledge gained from past experiences; this is important because his understanding of the author's ideas will be affected by experiences, or by lack of them.

However, reading is more than the translation of feelings, thoughts, and ideas; this is indicated by Taylor et al, who state that reading is:

...a perfect interaction between ocular functions and interpretive factors. The reader coordinates his eyes as he moves them along the lines of print in a left-to-right fashion, stopping to perceive words or word-parts which he continually adds up into thought units. He interprets what he reads in the light of his background, associates it with past experiences, and projects beyond it in terms of ideas, judgements, applications, and conclusions (Taylor, Frackenpohl and Pettee, 1960:1).

Reading is a two-fold process, then. There is the identification aspect, which is involved in bringing the

stimuli to the brain, and there is the mental aspect, those processes involved in interpreting the stimuli after they reach the brain, Wiener and Cromer (1967) concur with the idea of the two-fold process in their discussion of "identification versus comprehension," one of their four distinguishable reading areas, and they indicate that adequate ability in the reception of auditory language is a basic necessity of both identification and comprehension.

To facilitate discussion of the reading process, and its development in school children, then, the notion of a "two-fold process" will be carried throughout this section of the chapter.

1. The Identification Process

Although it has been stated that "the critical element in reading often is not what is on the page, but, rather, what the graphic symbol signifies to the reader (Smith, 1962:61)," nevertheless, the identification process that is a vital part of reading must be considered.

Reading begins as a process of sensation, the first occurrence in all perception. The reader reacts visually to graphic symbols. However, since the critical element in the reading act is a "meaningful response rather than the recognition of the symbol (Smith and Dechant, 1961:19)," then perception must include the arousal of meaning. That is, to understand the meaning of a word, the reader must be aware of those experiences symbolized by the word. Beginning and poor readers, according to Semelmeyer (1957)

often become so involved in the mechanics of reading, with word identification and pronunciation, that they fail to understand the need for comprehension. Reading occurs only when the reader understands what he is reading.

Perception is defined by Hebb (1958) as "those mediating processes to which sensation gives rise (p. 179)," and "quite commonly, these mediating processes are labelled thought, cognition, or ideation, and they serve as a link between the sensory input and the organism's response (p. 48)." In other words, perception "is the consciousness of awareness of the experiences evoked by a symbol (Dechant, 1964:19)."

Individuals, however, differ in their ability to react to symbols, and their interpretations have varying degrees of accuracy.

Word-perception is a learned process, comprising four stages: (1) The child must separate the word from the background in which it exists; (2) he must abstract pertinent details concerning the form or shape of the word; (3) he must classify the word or object in some way, and (4) he must identify the word to the place where it can be named or described.

There is a difficulty encountered here which has serious implications for the slow-learners in the secondary grades, students who are still developing the basic skills in reading. This difficulty lies in the premise that all children are visiles (i.e. that the child's preferred mode

of learning is by sight, or visual); they are not. de Hirsch (1966), in testing kindergarten children on modality of perception, found that, in ten out of the fifty-three children tested, seven were able to perceive well auditorially, but were poor visually, and three were poor in auditory perception, but good visually. Thus, approximately twenty percent of her population were unable to combine visual and auditory perception. Fernald and Keller (1921) also stipulate that the child has to be able to perceive both auditorially and visually, and indicate that some children prefer the tactile mode of learning. This would appear to have implications for the child, because, according to Vernon's (1962) research, there are two dimensions of perceivers: the child may be a synthesizer or analyser along one dimension, and an audile, visile, or tactile along another dimension (p. 212). Therefore, he may be a synthesizing audile or an analysing visile, and so on. Although most children eventually become visiles, Lowenfeld (1945) comments that the preferred modality may persist throughout life, and there are strong implications here for children in the secondary grades -- both those who are average or above average, and particularly, those slow-learners still developing their reading skills.

Language has a tremendous power in perception, or, in this identification stage, to aid in putting the name to a certain sequence of letters. Perception cannot be

dissociated from meaning; many problems in reading stem from deficiencies in auditory or visual memory, and as the child reads, he must trace back through written language to oral language to ideas. If he cannot do this, he may, as Horace Mann put it, be able to "bark at words," but he will not be reading.

2. The Process of Comprehension

Reading has been defined as the complex process of translating printed or written symbols into thought, but this is not always the process of automatic perception of word form and meaning which appears to be the goal of achievement set by the school. Before the total reading act is completed, there are many steps to be performed, and many aspects to cover.

Gates (1949) offers a comprehensive discussion of these steps in his statement:

It (reading) should be developed as a complex organization of patterns of higher mental processes. It can and should embrace all types of thinking, evaluating, judging, imagining, reasoning, and problem-solving ...The reading programme should, therefore, make careful provision for contributing as fully as possible to the cultivation of a whole array of techniques involved in understanding, thinking, reflecting, imagining, judging, evaluating, analysing, and reasoning (1949:4).

However, while contemplating these various intellectual activities pre-requisite to the total reading act, it is equally essential that one be aware of other

factors which are developing in the child, and which will affect his understanding. These are the cognitive and affective factors, and since they affect especially the slow-learning student and his progress through school, it is necessary that their influence be understood.

The Cognitive Factor

In the processing of language information obtained from reading, Jenkinson (1968) indicates that "not only intelligence, but appropriate levels of cognitive development including vocabulary and concept formation are pre-requisite to comprehension (p. 44)."

According to Cognitive theorists, when an act of perception occurs, the organism's response is determined by more than the proximal stimuli (i.e. the light rays), or by the direct stimulus or experience; the response is determined chiefly by a central process within the organism. This central process, termed cognition, intervenes between the stimulus and the response, and organizes the in-coming data into some sort of pattern. Dechant (1964) states that:

This pattern is significantly different from the mass of detail that composes the stimulus situation, because each new stimulus or experience is fitted into a pattern of previous experience. The response or meaning that is taken to a word consequently is not learning; it is not organization; it is a sign that the perceptual organization or learning has occurred (pp. 494 - 495).

The child's response to the printed word may or may not be adequate. If he is to react on the basis of past experience, and if this has been inadequate, then his meaning for the word will, in all probability, also be inadequate.

In other words, the meaning of the student's perceptions is almost entirely at the mercy of his past experience and his organizational characteristics. Unless the reader has had adequate experience, he cannot respond to the writer's words with proper meanings. He will be unable to react meaningfully if he is unable to assimilate experience and use it in understanding reality. Thus, although the prime emphasis in reading must, of necessity, be on meaning, for the student unable to identify the word, or not having had the appropriate experience, meaningful reading is out of his reach.

For the slow-learner in the secondary grade, there are serious implications in that there "may be cognitive limitations of the reader in terms of either developmental maturity, or of his unfamiliarity with the topic of the material (Jenkinson, 1968:44)," since both these aspects of cognitive disability seem to apply to this group of atypical students. Jenkinson (1968) continues by stating that, not only an adequate vocabulary, but "an adequate knowledge of vocabulary depends on depth and breadth of meaning, as well as the ability to understand the meaning of a word in use or in context (p. 44)." Earlier in this

chapter, there was some discussion as to the slow-learner's inadequacy in the higher levels of word concepts and definition, and it would seem that comprehension will be affected by this characteristic of the slow-learner. It is necessary, then, that it be determined at what levels of interpretation are these student capable of functioning, and what types of materials and learning experiences will be of most benefit to them.

However, not only must the cognitive ability be considered; of equal importance is the affective factor, and its influence upon the reader.

The Affective Factor

Holbrook (1965) feels that "because our society and its system of education at the moment imply inevitably, and often mercilessly, that children who do badly in intelligence tests are inferior creatures (p. 7)," then there is little doubt that many of the problems experienced by these children are related to their sense of failure.

If, as Gray (1950) comments, "In wholehearted reading activity, the child does more than understand and contemplate; his emotions are stirred; his attitudes and purposes are modified; indeed, his innermost being is involved (p. 3)," then this assumption that an individual's personality may be deeply affected by his being able to read must also be conversely true. The child who cannot read adequately, who has suffered non-promotion because of this inability, must also have had his personality affected.

Hardy (1968) in her research study on disabled readers, found that non-promotion in school appeared to have a negative effect upon academic, vocational, and social adjustment; self concept was particularly affected (p. 340). Hildreth and Wright (1940) found that, when the children in their study were registering for their remediation sessions which were part of the treatment for the study, "the most obvious fact was the distaste these children showed for anything connected with reading. Their fear of failure in reading and embarrassment were the results of former failures (p. 10)." So marked were the difficulties in adjusting to reading that the "children made unconscious attempts to escape from reading, the mental effort it entailed, and the dissatisfaction associated with the activity (p. 10)." All this led Hildreth and Wright to conclude that these slow-learning children, the subjects of their study, had been "emotionally shocked by reading, not emotionally satisfied as they should have been to insure positive learning attitudes (p. 15)."

It appears the attitude, interests, and purposes of the reader will affect the level of his comprehension (Jenkinson, 1968:44), Clark (1951) arrived at a similar conclusion in that:

...it is probably true that unhappiness, anxiety or boredom and frustration are more frequent causes of apparent dullness or backwardness at school than is sheer lack of intelligence (p. 61).

The reader's ability to attach meaning to the printed

word is dependent upon breadth and depth of his background of experience, a background built up of both real and vicarious experiences which together provide the wide and varied knowledge necessary for his understanding and interpretation of the printed word. In addition, comprehension is also "subject to the biases and attitudes of the reader, and both interest and purposes of the reader will affect the level of his comprehension (Jenkinson, 1968:44)."

The slow-learner in the secondary grades also possesses some specific characteristics which have been indicated through various studies. A discussion of these characteristics, essential to this thesis, will follow.

Reading Characteristics of the Slow-Learner

The slow-learner, according to Ingram (1953), Penty (1956), and Younie (1969), is noticeably different from the average child because of his weak - or lacking - powers of association, generalization, and abstraction, both verbal and in reading. This student arrives at general concepts only through many and varied experiences that put him in touch repeatedly with the same facts and principles.

The reduced ability of the slow-learner to make associations will result in more than a difficulty in perceiving sound-symbol relationships, and a meaningful vocabulary. Since a great deal of learning is based upon experience, either actual or vicarious, the child faces a formidable handicap if he cannot relate one experience with another and draw inferences from these relationships.

Problems in making abstractions mean that the slow-learner will act upon information that is immediately available without recognizing its present or future implications. He will find it difficult to comprehend material which lacks familiar elements, even though the content may include many clues to ideas he has already mastered. He has difficulty in grasping situations because of his inability to construct an overall conclusion from smaller pieces of information. As a result of his difficulties in abstraction, "the slow-learner appears to be an impulsive decision maker, seems to be easily led...(Younie, 1969:26)," and will often act upon oral or printed material without apparently thinking it through.

Abstraction and association difficulties tend to render the slow-learner intellectually incurious; that is, he shows little interest in exploring any but the most necessary, or those compulsory, avenues of intellectual content. In his reading, he will choose materials similar to those which have given him success in the past; he does not seek new interests or new ideas; he avoids any challenge which might be an invitation to failure. Hildreth and Wright (1940) concur with this in their findings that the slow-learners in their study exhibited two major symptoms.-- they tended to exhibit fatigue easily, and they were afraid to try because they feared failure (p. 12).

The slow-learner's inability to make generalizations

tends to effect a cumulative problem in that he becomes faced with more stimuli than he can assimilate, and is unable to recognize clues from which he can build generalizations; the gap between him and his average classmates widens perceptibly from year to year.

Thus, the slow-learner is considerably behind his normal peers in the frequency with which he uses reading as a major tool of communication. He finds it difficult to make associations, and to make abstractions; he does not seek additional information, new ideas, or new procedures; he tends to listen and read without making generalizations; he has a short attention span, and he is limited by an inadequate vocabulary and the complexity of language. There is also a circulatory of problems which aggravate retardation.

Since the slow-learner has difficulty associating the symbol with the sound, and is thus unable to abstract meaning from the printed page, he will probably not have good early experiences in reading. In turn, this may be the cause of his not reading sufficiently to extend his experiences vicariously. Because he reads less, and understands less, that which he does read will register less of an impact upon him, for he will be unable to abstract the full meaning. This serves to point out the total circularity of this problem: the grave difficulty of slow perceptual readiness, plus slow cognitive readiness, and the lack of abstracting capacity of these

slow-learning students appears to create a cycle which will continue unless there is evolved a curriculum which would ensure reading experiences of interest to them, to hold their attention, and "give such satisfaction as they can gain from words (Holbrook, 1965:235);" in other words, a "...program for slow-learning children generally, emphasizing activities and concrete experiences, a program free of strain and disappointing failure (Hildreth and Wright, 1940:68)."

The Nature of Secondary School Drop-Outs

The characteristics discussed above are all the more meaningful in the light of Penty's research study (1956). Her data included statements made by students who had dropped out of school, primarily because they could not read sufficiently well to tackle their courses. According to these students, their problems were:

- (1) difficulty in using ideas obtained from reading;
- (2) remembering what was read; (3) getting ideas to use;
- (4) taking little or no part in discussion because they could not recall the material to get the required answer, or because they were afraid of getting the wrong answers;
- (5) taking longer to do their work than the other students, for which they gave reading deficiency as their reason;
- (6) feeling ashamed and inferior in class; and (7), their greatest difficulty was their inability to talk about what they had read, since they "did not know what to say (p. 55)."

Penty concluded, as did Johnson (1963), that large numbers of these students were not reading at the level of which they were potentially capable, and that:

...with help in reading, a large percentage of students who had become discouraged and had dropped out of school because of difficulty with reading...could have developed in reading ability to the extent that reading would have been considerably less of a problem for them (p. 55).

That these factors underscore the need of a specialized curriculum is evident; however, the characteristics of such a curriculum must be propounded before the criteria are established, and it is the purpose of the final section of this chapter to draw together the findings of language and reading developmental processes as they apply to the slow-learner so that the characteristics of such a curriculum may be constituted.

Characteristics of a Differentiated Curriculum in Reading

A differentiated curriculum is predicated on the principle that "every child has the right to an equal opportunity for an education (Johnson, 1963:299)." That is, the educational experiences proffered each child should be those which best promote learning for him to the highest level he is capable of attaining.

In order that this may be accomplished, any such programme must be based on the understanding of child development, knowledge of how and under what conditions learning takes place, the understanding of causes of

behaviour, and the understanding of how these factors may be influenced or controlled.

So that any differentiated curriculum might be most effective, some inferences may be made as to what would comprise the characteristics of such a curriculum, and its concomitant learning experiences and subject matter.

These characteristics of the differentiated curriculum are summarized below:

1. In the implementation of this curriculum, the nature of the slow-learner will be examined, and characteristics and needs noted, in order that the learning experiences provided will be successful, satisfying, and supportive for each and every student who is involved.
2. The programme for slow-learners will be developmental in nature, and will include all aspects of a balanced reading programme; in other words it will not be primarily a remedial or a corrective programme, which appear to be the present emphasis for the slow-learner.
3. The programme will be based on a diagnostic assessment of the slow-learner's achievement, aptitude, and needs.
4. Use of content materials and meaningful learning experiences will be geared to the slow-learner. The curriculum will not merely require more

individual help, or a longer period of time to master a concept, or adjusted reading materials. Rather, concepts will be examined and chosen specifically for the slow-learner taking under consideration his different characteristics and needs, and materials to teach these concepts will be obtained or specially written for these students.

5. Because of the necessity for constant reinforcement, the programme will proceed more slowly, and require more practice and review of skills taught than does the programme presently geared to the average student.
6. The programme will offer learning experiences chosen after careful consideration of the social, educational, vocational, and civic prognoses for the slow-learner. Rather, this programme will consider and emphasize the most adequate learning experience for this student, based upon the knowledge of his characteristics, and a considered examination of his probable post-school activities and environment.
7. The curriculum will demand that careful qualitative records be kept by the teacher and by the student.
 - a) Teacher records will be qualitative and kept on a continuing basis in the form of notes pertaining to the daily work completed and further needs of the student, rather than

merely a listing of test scores. In this way, the full development of each student may be traced.

b) Students' records of work completed, vocabulary learned, books read, literature preferences, etc., will serve to motivate through tangible evidence of progress.

8. There will be greater flexibility in grouping and movement of slow-learning students than there is at present in the conventional classroom.
9. There will be a greater emphasis on the teaching of clues to comprehension of the written language. In other words, the slow-learners need more instruction and practice in those linguistic devices pertaining to the full comprehension of meaning in written language than does the average student, and this instruction and practice will be provided for.
10. This curriculum requires that teachers working with slow-learners be interested in, knowledgeable about, and cognisant of, the problems besetting these students. This is perhaps best pointed out by Johnson (1963), who states:

After having worked with children of normal intelligence, who develop rapidly intellectually, as compared with slow-learners, it must be difficult for a teacher to adjust

to the slower developmental rate of the slow-learning children...thus, teachers who change from the instruction of normal children to the instruction of slow-learners are required to re-orient their entire educational philosophy... this is a most difficult thing to do... without changed objectives, the kind of instruction required is impossible (p. 301).

These are the characteristics of a differentiated curriculum for the slow-learning student which indicate the purposes of experiences selected, the continuity of student development and growth, and the suitability of the various attainments to the student's ability and life-experiences at succeeding ages.

It is important that the total programme engendered by the curriculum be accepted by teachers, administrators, parents, and students if it is to be of maximum value; however, basically the onus for acceptance is on the teaching staff and administration, since student and community attitudes are largely a reflection of the acceptance, tolerance, or rejection felt and expressed by the school.

With the presumption that the faculty and administration are prepared to accept and implement any programme for the maximum benefit of these atypical students, the final step now is the establishment of criteria from which the most efficacious curriculum may be structured.

CHAPTER VI

ESTABLISHING THE CRITERIA FOR A DIFFERENTIATED CURRICULUM

Introduction

Despite the fact that the term "differentiated curriculum" has been used repeatedly throughout this thesis, it must be stressed that there is no one curriculum for slow-learners. The communities, environments, experiential backgrounds, cultural and socio-economic levels, and value systems of the children for whom a curriculum is to be structured must all serve to determine the objectives, learning experiences, and content materials to be selected.

However, although the curriculum and the course of study may be structured for many reasons, and subject to changes of many kinds, it is hoped that the criteria, both general and specific, to be established in this chapter will remain relatively constant. In other words, the criteria established may be enduring bases upon which to structure curricula and courses of study for slow-learners, particularly at the secondary level.

Section II will comprise a discussion of general criteria for slow-learners prior to and including the secondary grades; Section III will be devoted to the more specific criteria for the language-arts curriculum; and Section IV will be even more specific with a discussion of criteria for the reading curriculum.

General Criteria for a Curriculum
for Slow-Learners at the
Secondary Level

Taba (1962) comments that "the curriculum in both our colleges and high schools does not reflect an order of priorities, and that there are not criteria for establishing such priorities (p. 264)." She feels that in order to assure that "temporary needs and feelings of urgency will not overwhelm the basic functions of education, that omissions will be considered as carefully as additions, and that the possibilities of increased, efficiency in learning and teaching will not be overlooked (p. 265)," then there must be established rational criteria for determining the structure of a curriculum, the learning experiences, and the content matter to be covered.

One of the dangers inherent in the establishment of criteria is their misunderstanding or misapplication by those utilizing them, because what is intended as a criterion for the curriculum (as defined in Chapter III) could be misused as a criterion for learning experiences or content matter, and vice-versa. If curriculum is a statement of intended outcomes (i.e. a plan for learning), and if the objectives determine what learning is important, then, states Taba (1962), "it follows that adequate curriculum planning involves selecting and organizing both the content and learning experiences (p. 266)."

The formulation of criteria and their subsequent application for the structuring of a curriculum would

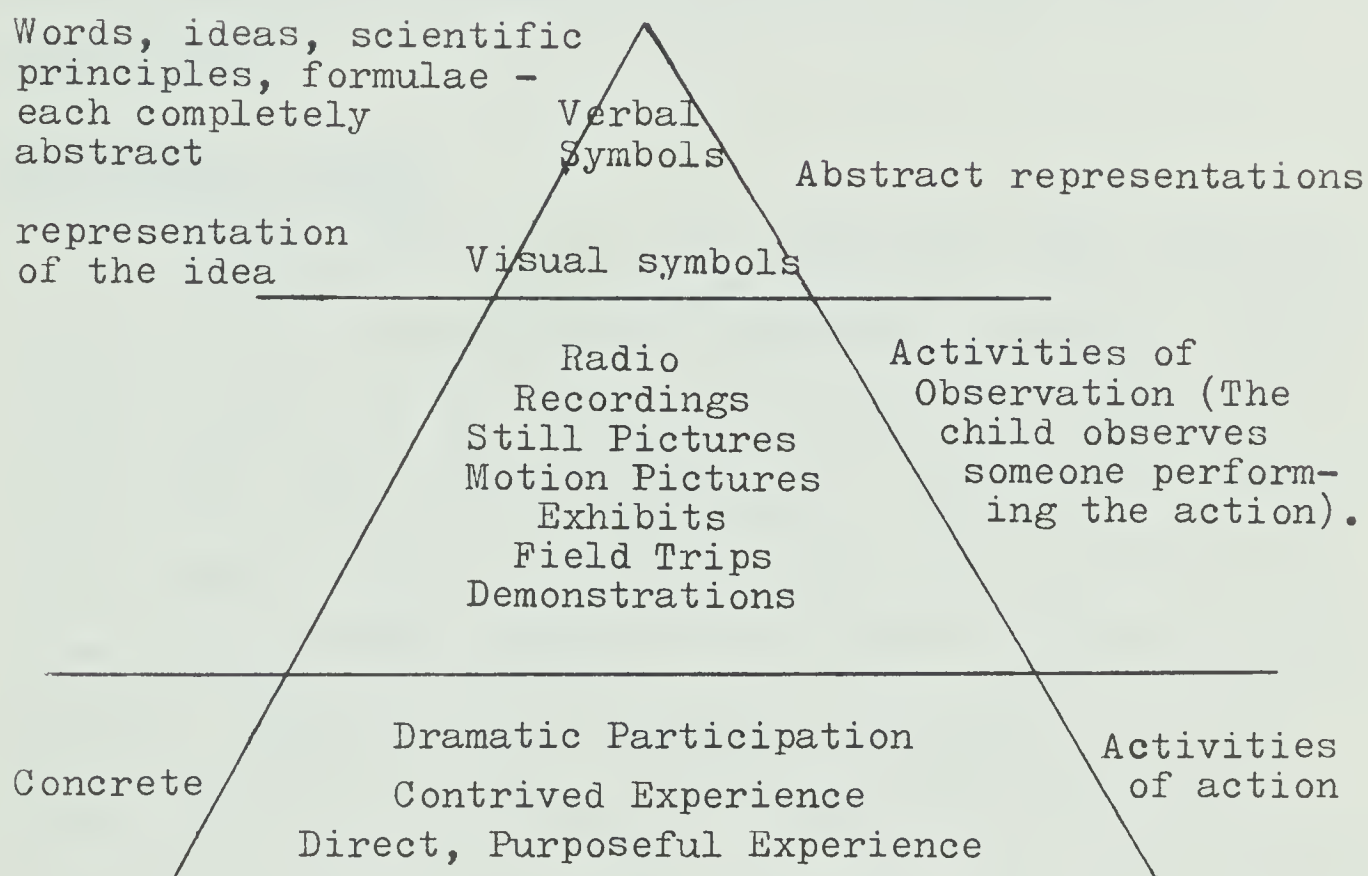
appear to comprise a translation of considerations derived from the study of the sources of objectives as propounded by Tyler, and discussed in Chapter III. That is, the criteria to be formulated here will reflect the implications from the discussion of the sources of objectives in terms of the study of the learner, the study of contemporary society, the suggestions of subject specialists, the school's philosophy, and the psychology of learning espoused in the selection of objectives.

For the slow-learner, it has already been established that the most valuable experiences are those which are termed concrete; that is, those experiences with purposeful activity.

The diagram of the Dale Cone of Experience serves to illustrate this point. At the secondary level, it is the areas of observation and abstractions which receive emphasis; for the slow-learner, though, the concrete aspect of experience should be utilized and emphasized.

However, although the primary purpose has been stated as establishing criteria for the secondary grades, this task would be difficult and distorted if the criteria were not formulated within the context of a total curriculum for the slow-learners which will offer, as stipulated by Lee and Lee (1960) "those knowledges, concepts, points of view, abilities, and skills (p. 158)" important for the development of each child; a curriculum which, according to Tyler (1950), has inherent within it the factors of

DALE CONE OF EXPERIENCE



This diagram is adapted from Dale, E., Audio-Visual Methods in Teaching, New York, the Dryden Press, 1969, p. 107.

"continuity, sequence, and integration (p. 55)." It is for this reason that the general criteria for a curriculum for the slow-learning student will be preceded by brief discussion of their peculiar needs at primary, intermediate, junior high, and senior high levels, and criteria will be established for the purpose of meeting these needs so that a total general curriculum for these students may be structured.

The Primary Grades

It has been stated previously that early identification of the slow-learner is essential. However, Younie (1969) points out the difficulty of this task when he states that the primary curriculum is limited to a relatively small number of content areas, and frequently the slow-learner slips through to the upper elementary grades without identification or remedial procedures (p. 65). Bloom (1964) also concurs that early identification is necessary, and cautions that it becomes more difficult to change many characteristics as the child grows older; indeed, he stipulates that only unusual conditions are likely to stimulate change in later life.

Younie (1969) states that, in the slow learning child at the primary level, areas which should be of prime concern are: (1) the development of perceptual-motor skills, (2) the development of colour perception, (3) the discrimination of size, and (4) other concepts related to reading and other academic subjects (p. 66). He stipulates also

that a thorough programme of language development is most crucial to the slow-learner's future school success, and stresses the need for direct language-stimulating experiences.

From a cautionary viewpoint, it should also be noted that what teachers tend to label "incidental learning" is not incidental for the slow-learner. Rather, as both Johnson (1963) and Younie (1969) advise, what might be incidental for the average child must be included in formal instruction for the slow-learning student.

Criteria for the primary curriculum should pertain to assessing the gaps in the child's experiences, determining his level of performance, and constantly reassessing his performance so as to prevent the habit of failure. They should stress flexibility, experimentation, and the provision of an adequate readiness period. For these slow children, there must be an increase of richness, variety, and concreteness of material that may have to be presented over a longer period of time than the traditional readiness period now observed; readiness is closely related to the constant assessment of the primary child's school accomplishments and the evaluation of necessary experiences that are not being provided outside school. Since formal instruction is based primarily on the child's capacity in verbal language, and reflects his experiences, then there must be a strong activity orientation at this early stage of his school career.

The Intermediate Grades

This period is one in which the concepts of review are coupled with growth and development.

There is a need at this level to relate specific content to the basic study skills, a premise based on the concept that learning is more effective if it actively involves the learner, and grows from interests stimulated by activities within his immediate experiences.

Deutsch (1964) discusses what he terms a "cumulative deficit hypothesis". This is a statement, supported by his research, to the effect that the inappropriateness of present school programmes appear to increase learning deficits for the slow-learner rather than ameliorate them. There are implications here in that the teacher must overcome this problem by planning activities in the content areas that will provide the slow-learner with opportunities to practice reading and language skills while he is learning the new content material. In this way, there would be less reliance upon reading subject texts for information, and the teacher would provide instruction in the content areas at the child's level of reading and verbal understanding rather than presenting content matter that would not be mastered by the slow-learner.

These atypical students can grasp certain concepts if they are presented in a concrete manner, but certainly not to the extent that normal students are capable of abstracting and conceptualizing.

The curriculum structured for slow-learners at this level must ascertain that there is adequate continued attention paid to the development of academic skills, provide the opportunity to review necessary readiness skills, and allow those needing it to participate in remedial as well as developmental work when necessary.

In other words, specific curriculum provisions and procedures should be developed to meet the educational needs implied by slowness, and these provisions should also emphasize the consolidation of earlier academic gains while including the introduction of new content matter appropriate to the child's developing and growing academic skills.

The Junior High Grades

The Junior High School years are a period of turmoil for the average student; for the slow-learner, particularly those who have failed repeatedly, these tumultuous years are intensified. Because of this, it is necessary that there be very clear and specific statements of aims and requirements. These school years must attempt to instil a sense of accomplishment in the slow-learning students, and the curriculum must be structured so as to contend with unfavourable attitudes resulting from years of continuous failure throughout the student's school career.

The slow-learner needs help in identifying and evaluating his present status and role in school, and determining his future role in society. He must be helped to translate his feelings and frustrations into acceptable

avenues of communication, obviating his tendency to resort to hostility and disruption. The school is in the ambivalent position of motivating the slow-learner to remain in school on the one hand, yet preparing him to meet the outside world should he decide to drop-out at the termination of compulsory attendance on the other hand.

At this level, the slow-learners must continue to undergo experiences in developmental academic subjects. All new learning experiences, however, must echo previous skills even while they are preparing the slow-learner for the more practical and applied academic subjects that will comprise the major portion of his high-school curriculum. Since vocational exploration should be a prime factor in the slow-learner's programme, the student and his family will require much continuing guidance to cope with what will probably constitute much lowered educational and vocational aspirations.

In summary, then, the criteria for the Junior High School curriculum for slow-learning students must relate the learning experiences of the preceding years to those of the years to come. This implies that although the curriculum must be flexible, for it will be directed at a broader span of ability than has been experienced thus far, there must also be a well-defined structure for these students who are without the firm structure of the academic programme undertaken by the average students. In terms of emphases, at this level, the curriculum should continue developmental

learning experiences, and provide for necessary remedial measures if these are required.

The Senior High School Grades

Criteria established at this level will constitute the bases of a curriculum which may be regarded as a bridge between school and work for the slow-learning student.

The impending vocational placement of these students will hopefully give rise to a renewed willingness in terms of participation in academic learning; however, there should also be offered what Younie (1969) terms "survival studies (p. 71)," comprising skills essential to vocational success. Emphasis must also be placed on preparing the slow-learner for his community responsibilities and his social role as part of a family.

The curriculum is terminal in that it will probably be the final learning sequence encountered by these students. Because of this, academic subjects must be practical, yet stimulate and motivate the student to finish his formal education.

General Criteria

In the structuring of a general curriculum for the slow-learning students, criteria specifically formulated with the characteristics and needs of these children are necessary. The criteria which follow are so formulated.

Criterion 1: a differentiated curriculum is based upon the physiological, intellectual, social and emotional

characteristics of the slow-learner, and will seek to recognize his peculiar needs.

Criterion 2: the differentiated curriculum stresses the total development of the slow-learner, and taken into consideration his characteristics, needs, environmental background, experiential background, his interests, motives, drives, biases, predispositions, and by all forces contributing directly or indirectly to his development.

Criterion 3: the differentiated curriculum will move forward progressively in the mastery of basic understanding attitudes, and skills in harmony with the peculiar needs of the slow-learner, and with the order in which various learnings should be organized to facilitate progress.

Criterion 4: the differentiated curriculum is organized on a flexible basis in accordance with the understanding that within this specific group of atypical students, there will be variance in experiential background, interests, attitudes, capabilities, and achievement. To this end, consideration will be given the following:

- a) A longer readiness period will be provided at the primary level for slow-learners who will be identified as a result of more extensive testing than a single beginner's intelligence test. Other tests used will pertain to:
 - (1) perceptual-motor development skills
 - (2) colour-perception
 - (3) size discrimination

- (4) auditory and visual memory retention.
 - (5) assessment of verbal capacity and experiential background.
 - (6) extensive physiological testing will be undertaken, including periodic screening for sight and hearing.
- b) At the primary level, the curriculum will stress language development through many more direct language-stimulating experiences than are required for the average student. Also stressed at this level will be:
- (1) formal instruction in those areas regarded as "incidental learning" for the average student.
 - (2) constant reassessment through teacher anecdotal records, in addition to formal and informal testing, so as to prevent the habit of failure.
 - (3) flexibility of time and activities, and freedom for experimentation by the teacher.
 - (4) provision of a great variety and concreteness of materials over a longer period of time than average students require.
- c) At the intermediate level, the differentiated curriculum will stress:
- (1) learning will actively involve the slow-learning student.

These activities will grow from his experiences and interests, which are likely to be more limited than those of average students.

- (2) activities in content areas will be related to, and provide opportunity for, practice in reading and language-skills while learning new content matter. Thus, there will be less reliance on subject texts, and more instruction and activities provided by the teacher at the child's level of understanding.
- (3) continued attention will be paid to the development of academic skills, and provision made for participation in remedial work when necessary.
- (4) emphasis will be placed upon consolidation of earlier academic gains, and include the introduction of new content matter commensurate with the slow-learner's developing and growing academic skills.

d) At the secondary level of education, the differentiated curriculum will:

- (1) assist the slow-learner to identify and evaluate his present role in school, through the keeping of cumulative anecdotal records, personal achievement records, and continuous counselling by competent faculty members.

- (2) base learning experiences, content matter, and teaching techniques upon the tenets of a sound theory of learning established through research studies relating to the most effective methods of promoting academic, vocational, social, and civic growth in the secondary slow-learning student.
- (3) proffer experiences in developmental academics which consolidate previous skills, and prepare the slow-learner for the practical and applied academic content matter which comprises his instruction at secondary levels.
- (4) offer skills essential to vocational success in the latter secondary grades.
- (5) place emphasis upon preparation of the slow-learner for his responsibilities as a worker, a member of the community, and a responsible member of the family.

Criterion 5: the differentiated curriculum will, at all levels, provide the slow-learner with relevant experiences and valid, significant content matter which will ensure supportive and satisfying learning experiences, and a lack of any frustration and failure.

These are criteria from which the general school curriculum for slow-learning students might be structured. The criteria for a differentiated curriculum in the language arts

will be discussed in the following section.

Criteria for the Language-Arts Curriculum

Personal, social, and, frequently, vocational adequacy depend upon being articulate; that is, upon the person's having words and language structures with which to think, the means by which to communicate adequately what is thought, and to comprehend that which is heard or read. The factor which would appear to be of prime importance in contributing to the personal development of the slow-learning student is an adequate standard of, and facility with speech. To this below-average group, "the inability to speak fluently is a worse handicap than being unable to write (Newsom Report, 1963:153)," if their vocational prognosis is considered; these are the future hair-dressers, store-clerks, salesmen, waitresses, hospital aides, garage attendants -- that is, workers who come into direct contact with the public, and who must be prepared to converse fluently and intelligently throughout their working day. Therefore, one of the greatest requirements of the language-arts programme offered these slow-learners is the opportunity to develop the ability to find words, and the confidence to express them through many and varied experiences.

Despite the spate of words bombarding students from radio and television, there may not be a great deal of benefit to be reaped from these media by the slow-learning child. Strom (1964) comments:

One often finds that the maximum exposure to language has come from the television set -- a situation in which the pupil is exposed to torrents of language used in situations unfamiliar to him. In addition, no response is expected of him; he is merely an observer, not a participant, in the communication process (p. 104).

The implications of this statement are important from two aspects. First, it was stated earlier that the slow-learner must be formally taught what other students pick up through incidental learning. This area of acquiring vocabulary would appear to be one of incidental learning by average students -- new words are read or heard, then used in their own speech or writing; meanings are often acquired by context clues which the average child is capable of observing. Not so the slow-learner, who needs to be taught the word and its meaning, and required to use it deliberately. He is the student who does not easily acquire vocabulary, as the discussion and statistics in the previous chapter pointed out. Second, that it is important for children to listen carefully is true, but merely receiving words -- whether it be from television or from the teacher -- and not thinking about their message, nor manipulating them for use in a reply is of little value to these students; with the slow-learners, particularly, learning takes place by experiencing, not by memorizing.

At the lower grade levels, particularly, communication will take place when words are about experiences, ideas, and interests that are of intrinsic value, and hence,

worth putting into language. However, by the time the slow-learner reaches the secondary grades, he must be prepared to reach farther afield for his experiences, and it is at this time that the secondary school teacher must guide this atypical student in the improvement of the extent of concepts and syntactic ability of his language. Quantity of vocabulary or memorized definitions are of little value.

Paulsen (1968) agrees that the problems of vocabulary development are of prime importance. She comments that the teacher has two basic obligations: (1) to help students build a good attitude towards words -- that is, to train them to get the exact meanings, and force them to translate these into their own words, and (2) to give students adequate and concrete help in building an adequate stock of word meanings (p. 262). At the secondary level, particularly, the former obligation is difficult. The habits of using incomplete sentence patterns, less words and word units, less complexity in syntax, inferior control and ineffectiveness of language have been compounded by failure, frustration, and comparison with students better equipped intellectually. This seems to make for a "deep-seated... resistance (Newsom Report, 1963:153)" in so far as efforts to upgrade the slow-learner's speaking vocabulary are concerned. That this has serious and very definite implications for the necessity of training teachers to handle this problem will be discussed further in the final chapter.

Paulsen's second obligation, above, serves to

reiterate the need of the slow-learner for direct, formal teaching and much practice in this area of the language-arts. But the slow-learner's need to have school experiences based in the development of language does not mean that the other facets of the language-arts (i.e. listening, writing, and reading) are to be neglected.

Listening is the complement of speaking, and since some of the slow-learning students may decline to read voluntarily after leaving school, they must be trained to listen with comprehension; that is, at the literal, interpretive, and critical levels. They need to recognize not only the meanings of words, but the meanings of stress, pitch, and juncture by which these words are relayed. This has implications for the reading process, wherein these students are required to translate the meanings of symbols serving to indicate these linguistic devices. The slow-learner, then, must be able to listen to directions, interpret them to complete his task, and to assess critically the blandishments of verboisities they will encounter in their adult life issuing from the radio, television set, and speeches of politicians.

In a world where the spoken word is so much more important than it has ever been, it is fallacious to assume that all slow-learners will take writing seriously unless they are assured of its value in their future lives. At the secondary level, the language-arts seem to perform what might be termed a service function to other subjects;

that is, other subjects supply the content, as well as the occasions for strengthening the pupil's resources in language. At this level, also, these students must prepare for the future, and work at Younie's (1969) "survival studies"; that is, writing skills essential to their vocational success, such as business and personal letters, reports, writing orders, and so on. In addition, the more creative aspect of writing may provide these students with great satisfaction if they are allowed to write without being stifled by being forced to conform to rigid standards of grammar, structure, and spelling.

Since the establishment of criteria for a reading curriculum will be dealt with in more detail in the succeeding section, those criteria pertaining to the other facets of the language-arts curriculum will be presented below.

Criterion 1: the differentiated language-arts curriculum will provide learning experiences designed to render the slow-learning student sufficiently articulate in both oracy and literacy so as to be personally, socially, and vocationally adequate.

Criterion 2: the differentiated curriculum will require formal teaching in areas which are considered incidental learning for the average student (e.g. the acquisition of vocabulary, knowledgeability of word meanings).

Criterion 3: the differentiated curriculum will bridge the gap between the informal language of the student and the formal language of school.

Criterion 4: the differentiated curriculum recognizes language as the basis of the thinking process, and will provide experiences for the secondary slow-learner in the areas of abstraction, conceptualization, and classification to the level of the individual's ability.

Criterion 5: the differentiated curriculum will stress oral communication skills to a greater degree, and for a longer period of time than with normal children:

- a) learning experiences will strive to overcome language deprivation due to environmental conditions and lack of language stimulation.
- b) content matter will be concrete rather than abstract for the intellectually less able students, with emphasis on the use of short sentences which are easier to structure and correct by the slow-learner.

Criterion 6: the differentiated curriculum will view as unimportant the formal, specific analysis of grammar. Only the most basic and fundamental grammar necessary for the daily life and vocational expectations of the slow-learner will be taught because of his difficulty in abstracting in analytical grammar (Shehan, 1962).

Criterion 7: the differentiated curriculum will emphasize the differences between oral and written language, and much more time will be devoted to providing learning experiences and content matter pertaining to linguistic differences.

Criterion 8: the differentiated curriculum will require

that listening skills be systematically and sequentially taught, with much emphasis on comprehension, and critical evaluation to the limit of the slow-learner's ability.

Criterion 9: the differentiated curriculum will recognize the value of dramatization in the development of language skills, particularly, in training the memory in sentence structure.

Criterion 10: the differentiated curriculum will require that, because of their short interest span and discouragement in the face of deferred returns, any work completed by slow-learners in the language-arts be checked and discussed in their presence as soon as possible.

Criterion 11: the differentiated curriculum will provide a developmental balanced language-arts programme which integrates speaking, listening, writing, and reading within the programme, and these skills with the other content areas.

Conclusion

The development of language is an integral part of the child's growth pattern. Since these growth patterns differ from child to child, the differentiated curriculum will allow the teacher to adjust learning experiences and content matter to the individual's rate of progress.

"The most damning criticism of any school system is that its products are illiterate (Wardhaugh, 1969:2)." But how many slow-learners leave or drop out of school unable to cope with the most limited demands on their ability to

read? The following section will attempt to discuss and establish criteria for a differentiated curriculum in reading at the secondary level that will assist slow-learners to become more adequate with those skills of reading of which they are capable.

Criteria for a Differentiated Curriculum in Reading

The slow-learning student entering the secondary grades is still developing reading skills, and should not be considered a disabled or retarded reader. Unfortunately, many secondary schools insist that these students be subjected to remedial reading courses, and have set up programmes for them consisting primarily of isolated drills in phonics. At the same time, the student is expected to return to his regular content area classes, and cope with the same texts and reference books as his more able classmates. Even in the special classes set up for modified programmes, the grade text has been used as the basic reference and work-book. The inability of these children to read their grade texts adequately has been regarded as a somewhat isolated learning disability rather than as one symptom of more general limitations. Brueckner and Bond (1955) comment on this: "...these children lack abstract verbal intelligence, and they cannot be expected to develop in reading capability, nor can they be expected to develop as much capability as can the average child (p. 186)."

Slow-learners passing through the elementary grades

without the benefit of a differentiated curriculum have got into difficulties because the programme advanced too rapidly for them; the objectives were not compatible with their abilities.

"Slow-learners," Kirk (1949) stipulated twenty years ago, "need systematic instruction at all age levels... They require systematic and planned instruction both for developing the perceptual process of reading, and for developing understanding and interest in reading (p. 175 - 176)." Blair (1949) also made an important contribution by stating that when a slow-learning student enters the junior or senior high school with little ability in reading, and with many bad situations toward reading, then "...the duty of the secondary school is clear. It must do what should have been done earlier, namely, begin a reading programme which meets the pupil at his own level (p. 188)."

What, then, should comprise the curriculum for the slow-learner in reading? And what should be the concomitant learning experiences and content materials? Once again, Wiener and Cromer's (1967) concept of reading as the "Identification versus Comprehension" process will be used in the discussion and establishment of criteria.

The Identification Process

Although the slow-learner develops more slowly than the average student, nevertheless, he must develop similar capability in the process of word-recognition so that he is eventually able to establish independence.

In the process of learning word recognition techniques, the slow-learner's difficulties in the association of symbol with sound, his slow perceptual readiness, his short memory span, and his tendency toward auditory discrimination problems have all to be taken into consideration, and a programme taught which maintains a balance between the development of a sight vocabulary and word-recognition techniques. This balance is important for two reasons: (1) some words lend themselves to phonic element recognition, while others are better recognized through their structural elements, and (2) the slow-learner may be an audile, a visile, or a haptic, and this has implications in that his preferred mode of learning must be identified, and the teaching techniques adapted to suit his needs.

It is of utmost importance that the slow-learner experience what E. L. Thorndike terms "practice with satisfaction". That is, if the slow-learner receives pleasure and satisfaction from the activity of reading, be it identification or comprehension, then he will develop a liking for the task. There are implications here for the materials used in the teaching of word recognition techniques. They should be appropriate for the slow-learners' level of independent reading, yet similar to the materials used by his classmates. In other words, a grade seven student who needs materials at a grade two level should not be required to work in a grade two reader. Rather, material commensurate with his interests and age should be provided

yet be written at a grade two vocabulary level. This example serves to point out the need for careful diagnosis and assessment of each slow-learner so that specific phonic difficulties may be discovered and help provided.

However, this does not mean to imply that the identification aspect of the programme should be emphasized. A balanced programme of the identification process and comprehension should be proffered, otherwise any programme offered will not be developmental, but remedial; it will not be a pleasurable and satisfactory learning experience for the atypical child, but a reversion to meaningless, non-applicable drills and work-sheet exercises.

The Comprehension Process

Comprehension is a blanket term that covers the whole area of thought-stimulating processes in reading. The ability to derive meaning from the printed page depends upon the child's familiarity with word-meanings; his ability to bring meaning to the printed page will depend upon his own background of experience, either real or vicarious. One of the functions of a differentiated curriculum is to ensure learning experiences for these students that will equip them to interpret symbols which, in turn stand for experiences.

In order that the characteristics of the different levels of comprehension to be discussed in this section be understood clearly, they will be defined below.

1. The Literal Level of Comprehension

Achieving the literal level of comprehension is the skill of getting the primary, direct, and literal meaning of a word, idea, or sentence in context.

This is the lowest form of stimulation of thinking, giving students practice in recall or the statement of facts. The slow-learner can become facile with literal comprehension of material at his own level, but care must be taken that his answers to the questions who? what? and where? do not merely convey the impression of comprehension due to his adeptness in parroting the text. In other words, in order that neither the teacher nor the student is misled by the convenient structure of replies embedded in the text, the child should be encouraged to respond in his own words rather than quote the text's original sentence, clause, or phrase.

2. The Interpretive Level of Comprehension

In addition to obtaining meaning by simple literal comprehension, the student may proceed to the next step of interpretation, by supplying or anticipating meanings not stated directly in the text, of drawing inferences, making generalizations, reasoning cause and effect, speculating on what happened between events, anticipating what will happen next, detecting the significance of a statement, passage, or selection, making comparisons, identifying the purpose of the author and the motives of characters, associating personal experiences with reading content,

forming sensory images, and experiencing emotional reaction (Smith, 1963:263).

Interpretation, then, advances beyond the literal level in its involvement of numerous thinking skills.

However, the development of deeper meanings are most difficult for the slow-learner because of his lack of oral facility. This is pointed out clearly by Penty (1956) who comments that the greatest difficulty identified by the high-school drop-outs in her study was that of their inability to talk about what they had read, since they "did not know what to say (p. 55)." In addition, the slow-learners have difficulty in recalling what they have read, and are unable to abstract and associate ideas for use in interpreting material. They may be able to attempt an answer to the How? Why? and Which? questions, but deeper meanings are beyond the ken of these students primarily because they do not possess the vocabulary, the word concepts, and the facility with words with which to understand or to express themselves.

3. The Critical Reading Level of Comprehension

At this level, the reader is required to evaluate; that is, he passes judgement on the quality, accuracy, and value of what is read. This is the type of reading done "to establish principles for judging well (Jenkinson, 1960: 5)."

The slow-learner finds difficult the processes of abstraction, conceptualization, and facility with language.

Because of their inability to recognize the different syntactic structures in, and the differences between, spoken and written language, the slow-learners find it difficult to abstract any meaning much beyond the literal level of comprehension. Thus, those complex thought processes required in the formulation of a considered judgement may be beyond most slow-learners.

The education of the slow-learner at the secondary level must be considered from the aspects of practicality, social adjustment, social and civic competency, and vocational adequacy. Penty (1956) found that of those drop-outs in her study, "Seventy percent of the 276 boys and girls who dropped out of school could have been helped to develop their reading ability until they were reading at or above the sixth grade reading level, which would have given them better opportunity for school satisfaction (p. 76)." There is no reason to believe that this situation is atypical. There must be similar numbers of slow-learning students who need, and can be given, help in developing their reading skills. It is the responsibility of the teacher to give attention to, and to help any student fulfil his reading potential, whether it be at the second, sixth, or beyond high-school grade levels.

Thus, there is a need for teaching techniques of reading to the slow-learners in the secondary grades. The secondary school teacher, faced with research data such as that proffered by Penty (1956) can no longer relegate the

teaching of reading to the elementary school, particularly since it has been established that the slow-learner is still developing skills upon entry into the secondary grades that the average student mastered by Grade six.

The differentiated curriculum for the slow-learner, then, must take into account all these factors, and provide aims and objectives which in turn, give rise to learning experiences designed to help the slow-learner successfully achieve his potential in reading. The criteria for such a curriculum are now listed:

Criterion 1: the differentiated reading curriculum will emphasize that the slow-learner's growth in reading development is facilitated through the systematic and sequential teaching of a balanced programme of identification and comprehension skills. In other words, it is a developmental programme as opposed to a remedial programme stressing either word attack skills or comprehension skills.

Criterion 2: the differentiated curriculum will recognize the increase in the complexity of the written language, and will place a greater emphasis on the recognition of linguistic devices used to indicate stress, pitch, juncture, and syntax than is necessary for the average student.

Criterion 3: the differentiated curriculum will require that slow-learning students entering the secondary grades be assessed with regard to their achievement and aptitude in the various skills associated with reading achievement:

- a) Identification skills

- b) Comprehension skills
- c) Visuo-motor skills
- d) Auditory discrimination skills
- e) Auditory and visual memory
- f) Verbal capacity and facility with oral language
- g) Physiological factors of sight and hearing capacity as these relate to reading.

The results will be utilized in determining the level of instruction for the student.

Criterion 4: the differentiated curriculum will emphasize that instruction based on the knowledge and interests of the child is more effective.

- a) Word-attack skills are more efficiently developed if instruction is based upon words in the child's vocabulary.
- b) Reading must have a purpose that the slow-learner considers important for effective development of comprehension skills.

Criterion 5: the differentiated curriculum will seek to impress upon secondary school teachers working with slow-learners that effectiveness in teaching subject matter content depends to a large degree upon their ability to impart a specialized vocabulary and other skills directly related to reading.

Criterion 6: the differentiated curriculum will stress those aspects of reading considered necessary for the slow-learner who will soon enter the field of unskilled or semi-skilled

labour, and will emphasize Younie's (1969) "survival studies" or utilitarian reading in the latter secondary grades. Thus, the skills such as reading directions, reading instruction, reference skills (dictionary, encyclopaedia classified advertisements, the city directory and telephone directory), reading newspapers and magazines, and studying propaganda and advertising techniques, albeit at an elementary level, may all be applied in such activities as:

- a) Reading job application forms
- b) Reading a driver's manual and a typical driver's test
- c) Reading contracts for purchases, insurance, etc.
- d) Reading and replying to classified advertisements
- e) Completing income tax returns
- f) Reading, analyzing, and criticizing advertisements, letters to the editor on fairly simple topics c.f. pollution, etc., and other controversial issues even though they may have to be simplified where necessary.

Criterion 7: the differentiated curriculum will require continuous assessment of the slow-learner through anecdotal records, standardized tests, informal tests, and day-to-day assignments. This implies that areas of weakness are quickly noted, and alleviated by specific teaching and study; thus, the balance of the developmental programme is maintained.

Criterion 8: the differentiated curriculum will recognize

the need for correlating reading and instruction in the total language-arts programme.

- a) For the slow-learner, every activity and experience will be regarded as an excellent opportunity for the application of, and further development in, functional situations in speaking, listening, reading, and writing.
- b) Experiences designed to develop further oral facility with words will be closely integrated with the reading process.

Criterion 9: the differentiated curriculum emphasizes flexibility in accordance with the understanding that within this group of slow-learning students at the secondary level, there will be variety in their attitudes, interests, needs, reading capabilities, and potential.

- a) The secondary level slow-learner will require instruction in basic reading skills, after entering the secondary grades.
- b) Needs will vary according to their present attitudes, peculiar interests, and future prognoses.

Criterion 10: the differentiated curriculum will take into consideration the significance of the affective factor in the development of reading, and will strive to emphasize learning experiences and content matter which will promote a positive reaction from the slow-learner.

Criterion 11: the differentiated curriculum will recognize

that the slow-learner arrives at general concepts only through many and varied experiences that put him in touch repeatedly with the same facts and principles, and will suggest learning experiences to achieve this objective.

Criterion 12: the differentiated curriculum recognizes the slow-learner is an impulsive decision maker, and will require sequential teaching and learning experiences to alleviate this characteristic wherever possible.

Criterion 13: the differentiated curriculum concedes that abstraction and association difficulties render the slow-learner intellectually incurious, and that this trait extends to his choice of reading materials (i.e. he chooses the same type of material consistently); the curriculum will require a "lush reading environment (Mingoia, in Weiss, 1961:168)" where choice in reading materials may be guided toward a wider range of topics and styles.

Criterion 14: the differentiated curriculum will strive to instil a pleasure of, and satisfaction in the reading process, so that slow-learners, although limited in their choice of reading matter, will none the less, recognize the need for reading, and in turn, encourage their children to read from early childhood by providing books, games, records, and other stimuli.

Conclusion

Any reading curriculum structured for the slow-learner at the secondary level must be based upon a thorough understanding of the nature of reading development in the

student, and through the appreciation of the many inter-related skills and learnings that are necessary for the child to acquire the skill of reading.

In order to read, the child must acquire a whole hierarchy of abilities which develop gradually and simultaneously throughout the years as he grows toward reading maturity.

The prime requisite for reading growth is the maintenance of balance among all the skills that are gradually developing, since overemphasis on any one skill may halt the development of another.

The curriculum must serve those aims of developing the slow-learner's personal and social adequacy; therefore, it must be flexible in order that it may be adapted to the individual's needs and potentialities, and have relevance to the student's present and future status in society, and relevance to the needs of that society.

The implications of the curriculum's objectives for the learning experiences and content matter which will serve to carry out those objectives may be stressed aptly by the following quotation from Chapman and Counts (1924):

Greeting his pupils, the master asked:
What would you learn of me? And the
reply came; How shall we care for our
bodies? How shall we rear our children?
How shall we work together? How shall
we live with our fellow men? How shall
we play? For what ends shall we live?
And the teacher pondered these words,
and sorrow was in his heart, for his
own learning touched not upon these
things (p. ii).

CHAPTER VII

SUMMARY, CONCLUSIONS, AND IMPLICATIONS

The literature pertaining to the slow-learner has been reviewed, and the characteristics of his physiological, intellectual, emotional, social and educational make-up have been summarized. The aspects of what comprises a curriculum, and how this differs from instruction have been researched and established. The place of the slow-learner in Alberta schools has been discussed; his language and reading developments have been compared with those of average students; and the criteria for a total curriculum, a differentiated curriculum in the language-arts, and a differentiated curriculum in developmental reading for the slow-learning student have been established.

There remains now the task of summarizing the views and findings that have been discussed, of drawing conclusions implied by these findings, and of stating the implications of the findings for reading, for teaching, and for further research.

Summary

The teaching of reading is unquestionably one of the most important tasks of our schools, for literacy is a necessity for what modern society regards as a complete education, and success in reading is assumed to be related to both successful living and being a successful citizen (Wardhough, 1969:1).

There has been a growing awareness of those students who are labelled "slow-learners" because of their limited intellectual capacity. Although educators have conceded the necessity for providing a differentiated curriculum, with its concomitant learning experiences and content matter specifically for these atypical students, little has actually been done for them.

Some attempts have been made to provide special classes, schools, course adaptations, and promotional plans for the slow-learner, but these concessions have almost all proved to be inadequate.

The literature reviewed indicates that the slow-learner does possess limitations physiologically, intellectually, emotionally, educationally and socially when he is compared with his average classmates. However, despite these limitations, researchers and writers [Penty (1956), the Newsom Report (1963), Abraham (1964), Tyler (1967), and Musgrave (1968)] have commented that most of the slow-learners at the secondary level are not achieving to their educational and intellectual potential.

It is perhaps in the development of language that the slow-learners' limitations are most noticeable. Although their development follows much the same speech and language developmental patterns as other children, their development is delayed, and they remain at each developmental stage for a longer period of time than their average peers. This inferior speech and language

development causes the gulf it establishes between the slow-learners and average students at school entering age to widen over the years, with the resulting implications for language and reading development of the secondary slow-learners.

The slow-learner is expected to achieve commensurate with his more able peers in the aspect of reading known as identification (Wiener and Cromer, 1967); however, it is in the comprehension skills where the slow-learner's difficulties are most evident. His slow-perceptual and cognitive readiness, his lack of capacity to associate, abstract, conceptualize, and classify, his short concentration span, and his incurious nature all tend to compound his difficulties in reading, and emphasize for him that he is unable to carry on reasoning and thinking activities as deeply or as comprehensively as the normal learner. Frustration increases throughout successive grade levels, and many of these slow-learners terminate their school careers as soon as they are legally able.

In order to remedy the situation of the slow-learner, especially those in their final years of compulsory formal education, it would appear that a differentiated curriculum is mandatory; criteria have been established for a general differentiated curriculum, more specific criteria have been established for a differentiated language-arts curriculum in developmental reading for the secondary level slow-learners may be structured. These criteria are all

based upon the research into the peculiar characteristics and needs of these atypical students, keeping in mind their vocational, civic, and social prognoses.

Conclusions

The conclusions are based upon the inferences made while reviewing literature pertaining to the slow-learner, and from research conducted with regard to the provisions made for slow-learning student in Alberta schools.

1. Slow-learners as a group exhibit behaviour characteristics resulting from continual failure experiences in the classroom, poor motivation, a dislike for school; their usual method of escaping failure appears to be by dropping out of the secondary grades.

2. There appears to be arising a situation whereby students with little or no training will find it increasingly difficult to obtain employment as unskilled labour.

Provision must be made to retain these students in school, providing for them according to their educational talents. For too long have the schools operated on the opposite principle: that because the slow-learners are "retarded" (i.e. slower in development), their school career can be terminated as soon as they pass the age for compulsory attendance.

3. Provisions made for the slow-learners to date have failed to take into consideration the following factors:

a) a differentiated curriculum, with its concomitant learning experiences and content matter was not

provided. Some special programmes consisted of extra time in which to complete the same requirements as the average student, or less work at the same level of the average student, using grade level texts and references was required. At best, the existing curriculum was "adapted".

- b) The term "slow-learner" for students entering these programmes was a misnomer. Students were underachievers due to various reasons, and the intellectually slow-learner was grouped with emotional and behaviour problems whose curriculum requirements, learning experiences, content matter, required teaching techniques, and learning methods are different from those of the slow-learner defined for this thesis.
- c) It would appear that teachers delegated to teach slow-learning students at the secondary level should be given special training, or required to take special courses regarding the learning processes or teaching methods most suitable for these atypical students. In addition, they should be specially trained in their knowledge-ability of the characteristics and problems of these students. Furthermore, these teachers should be educated to re-orient their objectives, for without these changes, there will result only frustration for both teacher and student.

4. While acknowledging that all teachers require thorough and adequate training for the teaching of reading skills, it is essential that teachers of atypical students such as these slow-learners be fully aware of the psychological, physiological, and intellectual factors entailed in the development of reading, in addition to a thorough grounding in the psychological and sociological characteristics and needs of these students.

5. There appears to be a tendency for the school to rely heavily on publishers for the provision of text books, references, and workbooks at specific grade levels. It would seem that if the student has had no success with these publications in a regular classroom, his removal to a special class with the same publications as basic texts and reading materials is not going to effect any improvement for the intellectually slow-learner. Therefore, it behoves the school, and teacher, to build a resource centre of materials at many levels of readability for the slow-learning students; that is, materials that are both commercially and teacher constructed, with careful regard for readability levels.

6. The tendency of the slow-learner to experience a "plurality of minor" physical problems would indicate that these children require more than the rapid physical examination mandatory at school entrance, and twice thereafter during the child's school years. Since sight problems are prevalent among these children, more than a cursory

examination with the Snellen eye-chart is called for.

Neither is a whisper-test or a sweep-test on the audiometer likely to indicate hearing impairment at specific frequencies, an impairment which leads to auditory discrimination difficulties, and on to problems of speech and reading. It would be ideal for all children to be thoroughly examined physically, but for the slow-learner, it may be termed essential for academic survival.

7. There appears to be little to be gained by the structuring of a differentiated curriculum for the children to overcome educational and personal frustration if they are to be turned out into an adult world without adequate counselling about vocational opportunities available to them which are both gratifying and realistic for them. Parents and child need continuous vocational counselling and help throughout the secondary grades if the frustration of school is not to continue on into frustration of daily living.

Implications

1. For Reading

The inability of the slow-learner to read adequately emphasizes the need for a differentiated curriculum which will offer him a well-structured developmental reading programme throughout his years in school. In terms of developing reading skills, he needs to be taught throughout the secondary grades in much the same manner as he received instruction in the elementary grades; that is,

systematically, sequentially, and regularly. Reading must be an integral part of the secondary student's school day, not relegated to one or two periods weekly.

Once the slow-learner's specific weaknesses in reading have been diagnosed, and recommendations made for his reading programme, it is essential that materials be carefully chosen. In recent months, a plethora of so-called "high-interest, low vocabulary" readers have been published. An examination of these is necessary to ascertain whether they are indeed written with recognition of readability formulae, or whether they merely utilize the simple sentence with the pattern of noun-verb plus object or modifiers. Also, careful examination of reading machines and gadgets, programmed reading-courses, kits, phonics records, and so on, should be made. While any of these might be incorporated as one part of a programme, its value must be adequately established in the mind of the teacher, and certainly, not used as the total programme.

An enthusiastic, knowledgeable, and understanding teacher, coupled with a "lush reading environment" and guided by a realistic differentiated curriculum will be of immense value to the slow-learners.

2. For Teaching.

The structuring of a reading curriculum for the slow-learner will be implemented only as well as the teachers and educators on the committee struck to create such a curriculum are eligible to serve. In other words,

for such a curriculum to be most effectively structured, the committee must be composed of members who are knowledgeable regarding the characteristics of these atypical students; that is, people who are aware of the research regarding their physiological, psychological, social, and educational needs. Also, the committee members must be absolutely clear as to what the terms "curriculum", "instruction", "course of study", and so on mean before these terms are bandied about. Frequently, classroom teachers' definitions do not coincide with those of Department of Education officials. Another important point is that brought out earlier, when it was stated that teachers of regular classes, or even teachers of slow-learners' classes who have not had specific and thorough training regarding these students have no place on a curriculum committee working to structure a differentiated curriculum for them. Philosophy of education and objectives are changed radically once a teacher becomes truly knowledgeable about these students.

The implications for teacher-training are many. First, a section of all reading methods courses should include some comment on the atypical student; his peculiar characteristics, needs, and prognosis should be familiar to all who will teach these children, at all levels. Second, the secondary teachers who now do not undergo any training in teaching the reading skills should be required to take at least one course in this, a course in which the slow-

learner's characteristics are discussed. Third, those teachers who are responsible for teaching the language-arts to these children at the secondary level must have either university training in this area of learning, or be required to undertake equivalency courses as inservice. It seems ludicrous that a teacher specializing in, say, the social studies is expected to take a specific number of courses to major in this subject before he is deemed qualified to teach it at any level. But all teachers are permitted to teach the vital, complex skill of reading, many having no university courses in this whatsoever.

Organization for the slow-learner is an autonomous matter for each school or school system at present. This will be discussed further in the Implications for Further Research section below.

3. For Further Research

The structuring of a differentiated curriculum and its ramifications for the slow-learning student will pose many problems which require extensive research so that the most relevant and effective solutions may be found and utilized.

The implications for this research will be discussed under the headings of general curriculum, the language-arts, and reading, both in general terms and in specifics.

General Curriculum

1. Longitudinal studies are needed to determine and

develop a basic theory of learning for the true, intellectually slow-learner.

2. Studies need to be conducted to determine effective ways and means by which teachers of average children might re-orient their philosophy for more effective teaching of the slow-learner.

3. Studies are required which will review and revise the knowledge of the current slow-learners in terms of their physiological, intellectual, social, and emotional characteristics. Many of the available studies are based on research of over forty years ago.

4. Research is needed which will explore the sequence of learning and the time required for each objective of the developmental curriculum to be most advantageously attained for the slow-learner at all levels of his school career.

5. Research is needed to determine ways and means by which the most advantageous learning experiences and content matter for the slow-learner may be selected.

6. More longitudinal studies are needed with regard to the segregation or integration of these atypical children in Alberta schools.

7. Studies analysing and applying the materials now flooding the market, ostensibly designed for the secondary slow-learner need to be carried out to ascertain those which will be most adaptable to the learning experiences and content matter being structured.

8. A thorough and frank study of why modified grades at Junior High School level were terminated, and of the adequacy of the Pre-Employment programme in the Edmonton Public School System and the special Vocational Junior and Senior High Schools in the Calgary Public School System now in progress needs to be undertaken. This would entail a study of criteria for entry, the differentiation of slow-learners and under-achievers, and the efficacy of the programmes from the viewpoint of the teacher, the administration, the parents, the community businesses which employ these graduates, and - most important of all - of the student himself.

The Language-Arts

1. A study into the most efficacious methods of improving the slow-learner's language facility needs to be conducted, taking into consideration his modes of learning and his peculiar needs.

2. A duplication or follow-up of Penty's research study should be conducted in either or both of the Pre-Employment Classes of the W. P. Wagner High School in Edmonton, and the Calgary Junior and Senior Academic-Vocational High Schools. An alternative to these specific classes would be a sample of the drop-out population in either or both cities.

3. Research is needed to determine the extent of the vocabulary of the slow-learner at various ages, and to specify its quality and range.

Reading

1. Research is needed in these general areas:
 - a) the provisions being made at the secondary level for slow-learners and developmental reading.
 - b) the provisions being made for remedial reading and the slow-learner, and specifically, what comprises the course.
 - c) what materials are available, and those which have been utilized for the slow-learner at the secondary level in developmental reading.
 - d) those teaching techniques which have proved successful and appropriate for these children.
 - e) an evaluation of these programmes, materials, and techniques.
2. A longitudinal study needs to be undertaken which compares (a) teacher-student interaction in reading, (b) reading instruction primarily through kits and machines, and a third group combining both (a) and (b) in proper perspective.
3. Specific research is needed to determine:
 - a) how far the slow-learner can go in abstraction, association, conceptualization, and making generalizations.
 - b) whether the slow-learners have more perceptual problems than normal students.
 - c) whether slow-learners have more auditory problems than normal students, both in acuity and

and discrimination.

- d) the extent to which visual and auditory memories differ from those of the normal student.
- e) the specific difficulties and problems of the identification of words, compared with the normal child's achievements (e.g. blending).
- f) the extent to which non-recognition of linguistic devices used to indicate stress, pitch, juncture, and syntax affects the comprehension of the slow-learner, and compares with that of the average student.
- g) the extent to which the affective factor plays a part in the development of reading skills for the slow-learners, as compared with the average students.
- h) the range of interests of the slow-learner which pertain to reading, and how these may most effectively be stimulated.

Concluding Statement

The suggestions above pertaining to research concerning the slow-learner might serve to extend our knowledge about the complex make-up of these students. One thing is certain, however; it is undoubtedly desirable to continue giving help and instruction in developmental reading throughout the high-school grades. To paraphrase the Newsom Report (1963), some twenty percent of our future is at stake in these students. Our schools need a

differentiated curriculum, a programme of instruction, and adequately trained teachers to implement these.

The answer to the problem of the slow-learner is in action, which will entail research, experimentation, and evaluation.

The role of these students politically, economically, and socially in our nation's future is vital; it behoves us to educate these children for that future.

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